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MASTER'S THESIS

An exploration of Public Perspective on Integration of AI in Digital Marketing

En Utforskende Studie om Offentlig Perspektiv: Integrering av AI i Digital Markedsføring

Candidate number: 103

Master of Science in Business

Department of Business Administration

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15.11.2023

Jeg bekrefter at arbeidet er selvstendig utarbeidet, og at referanser/kildehenvisninger til alle kilder som er brukt i arbeidet er oppgitt, jf. Forskrift om studium og eksamen ved Høgskulen på Vestlandet, § 12-1.

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Preface

This thesis is my last assignment in the master's degree program: Master of Science in Business at Western Norway University of Applied Sciences in Sogndal. After two bachelor's degrees and a master's degree, I have studied at HVL for a total of six years. And I secured work as an auditor before graduating thanks to that. I have learned a lot academically, and learned about myself, and as such I would like to thank the whole School for making my academic development possible. I would like to thank Atanu Kumar Nath for great guidance on the master's thesis, as well as Anne Marthe for helping me push through tough times with counseling and support. I would like to thank all the people in my class for great companionship and especially thanks to Studentsamfunnet i Sogndal for the social activities and great friends, experiences, laughter, and generally good times along the way in all my time studying in Sogndal. I don't think I would be where I am today without Studentsamfunnet i Sogndal.

Abstract

This thesis, "An Exploration of Public Perspective on Integration of AI in Digital Marketing," investigates the link of artificial intelligence (AI) and digital marketing, focusing on public perception and its influence on the technology's development and integration. The study delves into the role of AI in marketing operations and value, reflecting upon AI's potential to redefine traditional marketing paradigms. The research draws on netnographic data, capturing public discussion and sentiment from digital forums, to uncover the prevailing attitudes towards AI's capabilities, limitations, and implications for the future of marketing. The analysis reveals a complex tapestry of optimism, skepticism, and practical considerations surrounding AI, highlighting concerns over job displacement, the need for human oversight, and economic factors influencing AI adoption. The findings suggest that while AI is poised to augment marketing efficiency and creativity, its acceptance and success largely depend on public trust, understanding, and the responsible management of its deployment. This thesis contributes to the ongoing dialogue about AI in digital marketing, offering insights for businesses, policymakers, and researchers navigating this transformative technology's landscape.

Keywords: Digital Marketing, Artificial Intelligence, public perception, consumer value, netnography.

Sammendrag

Denne studien, "En utforskning av offentlig perspektiv på integrasjonen av AI i digital markedsføring," undersøker det fremvoksende skjæringspunktet mellom kunstig intelligens (AI) og digital markedsføring, med fokus på offentlig oppfatning og dens innflytelse på teknologiens utvikling og integrasjon. Studien går inn i rollen AI har i markedsføring praksis og verdien AI bringer, og reflekterer over AI's potensial til å omdefinere tradisjonelle markedsførings paradigmer. Forskningen trekker på netnografiske data, som fanger opp offentlig diskurs og meninger fra digitale fora, for å avdekke de rådende holdningene til AI's kapabiliteter, begrensninger og implikasjoner for markedsføringens fremtid. Analysen avslører et komplekst bilde av optimisme, skepsis og praktiske betraktninger rundt AI, og fremhever bekymringer over nedbemanning, behovet for menneskelig tilsyn og økonomiske faktorer som påvirker AI's adopsjon. Funnene tyder på at selv om AI er klar til å forbedre effektiviteten og kreativiteten i markedsføringen, avhenger dens aksept og suksess i stor grad av offentlig tillit, forståelse og ansvarlig håndtering av implementeringen. Denne studien bidrar til den pågående dialogen om AI i digital markedsføring og tilbyr innsikt for bedrifter, politikere og forskere som navigerer i dette transformative teknologiens landskap.

Chapter 1 Introduction

Artificial intelligence (AI) is and will be the focus to improve further for our future and for the survival of business explained by the explosive increase in interest for AI. GPT (Generative Pre-trained Transformer 3 and 4, henceforth referred to as "GPT") is an example of revolutionary AI software tied into the recent development. Stated just as revolutionary the smartphone or the internet as stated by Bill Gates, the CEO of Microsoft (2023). AI will bring a change to how people are communicating, acquiring knowledge, how they are educating, and how they are working (Gates, 2023). The large language model became available for consumers in November 2022 as ChatGPT (OpenAI, 2022), after beta testing was finished early 2022. The monthly active users hit 100 million active users after a couple of months as addressed in a study by UBS (Paris, 2023). This makes ChatGPT, as an AI model the fastest growing application for consumers in history, outclassing even Tik-Tok and Instagram in virality. Furthermore, AI will be a large contributing part in the fourth industrial revolution, which is characterized by a physical, digital, and biological technology fusion (Schwab, 2016). For this reason, to study AI and its capabilities in public markets would be beneficial for the further employment and adoption of AI power in marketing.

Some of the leading technological developers are terrified of the consequences a powerful AI application may bring. They comprehend the rapid AI development as a danger to humanity and society as the risk for uncontrollable powerful AI systems increases in parallel to the development stage of AI (Benigo et al., 2023). They call for a six month pause in development of AI systems more powerful than GPT-4, which in turn is already well into the development stage and released for ChatGPT plus members (OpenAI, 2023). The authors of the open letter also worry if AI can in turn replace humans in several fields.

This brings the question, is AI needed for firms to grow? And how can the public perception stagnate further development? Or will the opposite effect be present, where the public perception of AI is propelling the growth of AI forward with consumer goals in mind. The scope of this problem would be too wide as several services would be AI replaceable in different ways and levels. Therefore, to limit the scope of the thesis the chosen focus is on implementation of AI in marketing operations, and perceived value it brings to the consumer.

Most research on AI in a marketing context is not widely detailed as most of the research vaguely touches on specific marketing practices and focuses more on its general use in marketing. However, one specific marketing thesis was written about AI in B2B marketing (Singh, 2022). A new major research article with contributions from 43 different experts in fields such as marketing, computer science, information systems, education, policy, hospitality and tourism, management, publishing, and nursing (Dwivedi et al., 2023). This article explains the benefits of AI and systems more powerful than the popular LLM (Large language model) GPT and how it can be implemented into existing organizational structure in the mentioned fields (Dwivedi et al., 2023). The three most important prior research topics of AI in marketing are Content generation, Advertising Copy and Customer Service. In CM (Content Marketing) by using AI to create high quality-content for marketing purposes, especially coherent, grammatically correct, and relevant to the topic at hand text-based content (Dwivedi et al., 2021).

Operations in marketing could be marketing services provided for small startups, market analysis, marketing strategy development etc. In this thesis, the selected service provided to assist business marketing to explore and review that seems to have the most risk to be replaceable by AI is Digital Marketing. Digital marketing is a form of marketing focusing on using channels such as the internet as an avenue to deliver ads, products, and feedback opportunities to customers (Gkikas & Theodoridis, 2019). Although digital marketing is a huge topic and the most relevant part of current marketing tactics. The focus is not on business expected risk of AI in digital marketing but the common opinion and perceived value of AI in digital marketing. The research questions for this thesis are as such defined as follows:

- 1. RQ1: Can the public perception of AI influence value provision of business operations in Digital Marketing?
- 2. RQ2: Can the public opinion of AI affect development of AI in Digital Marketing?

Because of the need for exploration of the topic at hand and with a limited research amount on AI in digital marketing, a qualitative study is chosen for this thesis. To gain results for the research questions, the thesis will include netnographic study to identify trends, gaps, opinions, the consensus, and knowledge about the chosen theme. This can provide focus for future researchers where the question of AI in Digital Marketing appears again.

As discussed earlier, there is a growing body of literature exploring the potential of AI to improve marketing performance. However, a research gap still exists regarding the impact of AI on the value generation of business operations in digital marketing. Specifically, it is not clear whether the public availability of AI has influenced the value of business operations in digital marketing. Moreover, it is not known whether the public opinion of AI reinforces the need for development of AI in a digital marketing context. Therefore, this research aims to fill this gap by exploring the relationship between AI, public availability, public opinion, and the value generation of business operations in digital marketing. By doing so, this research aims to contribute to the current understanding of the potential of AI in improving marketing performance and provide practical implications for businesses operating in the digital marketing landscape.

The structure of the thesis is in line with regards to successful qualitative research structure, where communicating the researcher's knowledge of the topic and method execution, as well as being able to write interestingly and understandable with discernible logic (Klopper, 2008). This thesis has 6 main chapters, 1. Introduction, 2. Literature review, 3. Method, 4. Results, 5. Discussion and implication, and 6. Conclusion. This falls in line with the proposed structure Klopper (2008) researched and the thesis can convey the results of the study in an organized and discernible way. The main body of the thesis is both chapters Literature review, Methodology and Results. It is as important to formulate a reasonable base for questioning as well as understanding the results derived from the research, especially when research on the topic of AI in digital marketing is limited.

Chapter 2

Literature review

2.1 Background

2.1.1 Digital marketing

Digital marketing is a concept emerging from the digitalization of normal practices in marketing like online marketing of goods or services on the internet or e-Marketing. The normal practice of marketing would be to trade between a seller and a customer in a physical setting. However, with digital marketing the process of trade is done on the internet through channels like websites or telephone. The Internet has become a staple in people's daily life because of increased ease and convenience of obtaining information rather than the competing media like newspapers, postal advertisement, or magazines (Hassan, 2021). The means of communicating with the customer with different means is what defines digital marketing and differentiates it from the traditional concept. Digital marketing has thus been described as utilizing digital technologies to accomplish marketing objectives (Chaffey et al., 2009). Digital marketing relies on the internet as a fast, convenient, and cost-effective medium for executing the main types of marketing that were conducted through other traditional means (Bronnenberg et al., 2016).

2.1.2 Digital marketing types

Identified by previous research marketing done by Hassan, 2021, Kotler's views on marketing can be separated into three types. They are external marketing, internal marketing, and interactive marketing.

External marketing is associated with the traditional usage of the marketing mix or the 4 P's, both designing and implementing it into organizations practices. (Product, Price, Promotion, Place) (Chang et al., 2019).

Internal marketing involves promoting a company's goals, offerings, and services to its own employees. Not as a goal for the employees to buy the product, but to attain knowledge of what their company is offering to their customers. Companies may then be prompted to offer an effective protocol to train employees to offer better customer experiences via communication and motivation. Hence, all employees should be trained so they may better

satisfy their customers' needs by effective training and being offered more knowledge about their company. (Culotta & Cutler, 2016)

Interactive marketing is tied to the quality of the company's services or products, and the quality of the interaction between buyer and seller to try to maintain good customer relations (Sridhar et al., 2019).

2.1.3 What advantages has digital marketing brought?

The digital age brought many opportunities to evolve marketing to a more widespread and effective marketing strategy which investors capitalized on quickly. The advantages were born out of the need for innovation and the most important of which are the cost factor, content and duration, and the spread of promotion.

The cost of digital marketing is lower in aspects such as but not exclusive to promotion, communication, transaction, and distribution (Kiang & Chi, 2001). In contrast to traditional marketing, the way digital marketing functions does not need a specific seller or clerk to handle the customer. Customers can usually click their way through a purchase online, eliminating the salary of a clerk to provide the customer with the company's options of products and services. In the aspect of promotion, the need for media like television, newspapers, magazines, and other options in traditional marketing increases the cost regarding word count, length of ad or pages purchased to use as promotion where the media charge a high price (Verhoef et al., 2015). Promotion through the channels on the internet costs a lot less than the media channels (Wedel & Kannan, 2016).

As mentioned with traditional marketing channels there is a limit to the amount of content companies can place in media-based promotion either word count, length of ad or space on a magazine page. In addition, the longer or bigger the advertisement is the higher the charge will be on the advertisement (Grewal & Stephen, 2019). On the matter of digital marketing, the longevity of the advertisement never expires in such a way as the newspaper or magazines because the physical options do not have the precedence to be kept after they are read through.

It is self-evident that to produce a physical ad such as in a newspaper and to distribute it is less cost effective and more work intensive than to let the internet trends, algorithms or a frequently visited web page to contain the advertisement produced. The labor required to distribute an advertisement online is in a way outsourced to the developers of web pages or for example advertisement controllers on social media. In this way the discoverability of companies to customers that have a need or desire is subsequently met with advertisements on their favorite websites.

2.1.4 What is Artificial Intelligence?

Artificial intelligence is a term coined by John McCarthy in 1956, whereas production of human intelligence in machines is explored and researched upon (McCarthy, 2007). Intelligent machines have been researched since WWII where Alan Turing may have been the first to explore the possibilities machines have (McCarthy, 2007). Some AI (Artificial Intelligence) designs include deep learning, speech recognition, image recognition, content creation, and problem-solving (McCarthy, 2007). AI is used extensively in our everyday life already, for example the function of auto-correct on mobile phones, or search engines that pull bits of information and search results from the internet to be delivered to the user with the use of a search query or prompt. In scientific uses, weather forecasting is calculated with the use of AI as an example in the scientific world.

2.1.5 Artificial Intelligence in Digital Marketing

The importance of AI in Digital Marketing can be emphasized by the massive amount of processable data generated on the internet. Processing useful data for companies must be done virtually, due to the sheer volume of data that is being generated from even the smallest companies (Mayer-Schönberger & Cukier, 2013). However, with the implantation of AI all relevant data could be extracted and processed automatically. Some of the most important applications AI are already used in are chatbots, content creation, cookies, propensity modeling and predictive analysis (Nair & Gupta, 2021).

Chatbots are used in business to communicate with the customer for support automatically. Chatbots have abilities such as 24-hour support, instant response, able to answer simple customer queries, natural language communication etc. (Kaczorowska-Spychalska, 2019). Chatbots have become the most popular customer interaction method for companies as they are a cost-effective alternative to the human counterpart (Kaczorowska-Spychalska, 2019).

By content creation the term encompasses the ability to AI generate appealing pictures, web-design, text, or video. The advancements AI have made in this field are evolving fast (Geng et al., 2020). The use of AI in e-commerce Digital Marketing is essential as a standard webpage could be unable to appeal to every customer. The use of AI can automate the process of engaging customers in options they would be interested in. For example, the use of suggesting products purchased together with the customer's chosen item (Nair & Gupta, 2021). Another application that Digital Marketing can take advantage of is DALL-E 2 (OpenAI, 2022). The application allows a text prompt to generate images fitting to the written prompt. Images are a major part of web-designs which Digital Marketing focuses on to attract and keep customers. However, this is not a valid argument for the value of AI in digital marketing. More of an addition or flare for the generation of digital marketing content. It's stated as an application for the future use of AI marketers may use.

Cookies, a form of propensity modeling, was introduced to the internet in 1994 for the purpose of saving the state of the web page, for example they made it possible to keep items in a shopping cart even though you left the page (Cahn et al., 2016). The modern use of cookies is a strategic implementation of users' activity on the internet. Companies sell this data collected to advertisers to target customers that share a similar recent search or activity. In Digital Marketing this term is called Propensity modeling (Nair & Gupta, 2021).

The data collected by propensity modeling can be analyzed by AI to create predictive analysis. This helps companies determine how well their strategy worked and by using the data gathered they can improve their targeting, improve their knowledge of customers, increase the chance of a purchase, and set prices to the optimal outcome etc. Though to process this kind of data, a lot of time must be invested. AI can then in turn be used to analyze the results saving the time needed for analysis. However, with the level of AI we have today, reviewing the results is still needed as not all reported results are correct.

In this evolving field, the practicality of AI in marketing continues to be tested against industry perceptions. While some view AI as a valuable assistant capable of enhancing human work, others are wary of its limitations and the potential for over-reliance on technology. As we explore these themes further, we delve into the public's perception of AI's integration into digital marketing and its broader implications for the industry.

2.2 The question of perception

AI tools offer many opportunities to enhance marketing performance, assisting with campaign building, content marketing, design, and customer service. Yet, the question remains: can public perception embrace these advancements, or will it hinder their integration into business practices.

2.2.1 Public perception of AI

AI have many opportunities to improve marketing performance, it can help with building marketing campaigns, content marketing, content designing, chatbot based services, customer experience, keyword suggestion, marketing research, and brand comparison (Dwivedi et al., 2023; Brand et al., 2023; Rathore, 2023). But will the public perception of AI as a whole limit these opportunities or prevent change in business? The public perception of AI was studied by Kelley et al. (2019). Whereas of 10 005 respondents a large part of the respondents in this study are worrying over the advancements AI has made and the effect it will have for society. However, they do not worry if AI is bad for the future, most of the data points toward an uncertainty for the future results, the question of is it good or bad for society. Also, a large quantity of the respondents admits to either having an excited, useful, or futuristic vision for AI. This poses the question if the AI knowledge of the public is good enough to understand what the real effect of AI will bring to the future. Their expectation is that AI will change some things in society in either a good or bad way.

The public should be considered as an important stakeholder, as they are the recipient of new technology and innovations in the largest market, namely the consumer market. They should have a say in implementation, acceptance, or adoption for new technologies in the market (Hick et al., 2022). As for what should or should not be accepted for now is heavily

indoctrinated by the larger corporations, states, or commissions by determining if the developed AI is dangerous by the weight of malicious- intent or opportunities discovered in testing. Thus, for example, for a private citizen to determine if AI is dangerous or not, a substantial risk for privacy leaks exists by them using developed AI unbeknownst of hidden mechanics or operations stealing their private information. Therefore, a closed system, monitored by experts, is the most secure way to test AI in theory. Furthermore because of the steep implementation of AI in technology since 2000 the relevance for the research questions is what harm or good would public perception of AI bring to further develop the capabilities of AI in the future. Thus, if AI is to be adopted it needs to be trusted by the private consumer reliably.

2.2.2 Trust in AI

Trust is the acceptance of vulnerability based on expectations of the actions of another party in either human relationships or the functionality of entities (Bahmanziari et al., 2003). Trust for technology is more of a functionality-based trust where the expectations are based upon the technology's use and functions. Furthermore, technology does not get far without trust from the general population as they are the ones subscribing to innovation with the purpose of an easier time. Even still there are cases where technology has broken said trust and is still saturated with adopters and users, for example the case of Facebook data leaks. There have been multiple data leaks on Facebook, however people are still using the social platform though with a short decrease in new users. This could be explained as an issue that would have more weight if the company that broke the user's trust was not so incredibly big as Facebook and the perceived value of an individual's privacy was greater than proven.

Trust in AI is the same, we expect the outcome is satisfactory as the promised function gives us our result after inputting data to be processed. However, recently with GPT-3 becoming publicly available the facts still need to be checked over to avoid false statements to be derived as factual statements (Floridi & Chiriatti, 2020). GPT-3 and OpenAI combats this problem with trust by announcing that the results received might not be a hundred percent accurate and thus lowering the expectation of a flawless result after providing a prompt. Still companies should provide precision and not base their programming on "it might work as expected", this would not be useful at all. Trust does not appear out of thin air, but it is fostered as users get to know the program, the early adopters are the ones laying baseline

expectations for other adopters to use. However, it is still proven with the case study by Floridi & Chiriatti (2020), that critical evaluation of the result is still needed for the use of AI even though other users praise the technological advancement. Trust can be gained from multiple sources of information and assurances, including, but not limited to; transparency, integrity, sustainability, regulation, moderation, and certification (Bedué & Fritzsche, 2021).

2.2.3 AI regulation

Relatively recently, in April 2021, the European Commission proposed a draft for new or revised regulatory framework and laws affecting AI development and publication called the AI Act (EU AI Act, 2023). Its existence serves to regulate deployment of AI that can be used in different applications. As well as make sure the AI programs are safe, transparent, traceable, non-discriminatory, and environmentally friendly before approval of their deployment in markets (EU AI Act, 2023). The AI Act may have sparked from the explosive development of the LLM GPT-3 where the potential of several million users to be exposed to an AI system with limited knowledge of the risks it posed. Some scholars have demystified this AI Act and brought forth the key elements important to understand. Veale & Borgesius, 2021, aimed not to summarize the proposed draft but to contextualize and critique it. They state that the Draft AI Act brings many useful elements to existing law such as the intention to differentiate requirements by level of risk, where the lower risk the AI system poses to users' safety the less requirements for allowing deployment is in place (Veale & Borgesius, 2021). However, the authors comment on severe weaknesses of the Draft AI Act such as the patchwork method where EU legislatures have stitched 1980s laws and regulations together to create the draft. Veale & Borgesius, 2021, illustrate that by using this method it is all but watertight law and needs a lot more work to be a useful addition to existing law.

It is however important for a general regulatory power for the development of AI as harmful systems may be developed in the future. And by acting early such events might be avoided (Buiten, 2019). As of last year, the only form of regulatory action for AI was human ethics, morals, and code of conduct. And people are generally confused as to why a regulatory system needs to be in place for AI (BeautyInUgly, 2023). The AI Act in some cases seems to have the perceived effect of halting AI development in the EU and US. This is true in some sense, the large AI systems designed as a product for purchase will be affected as the system is required to be investigated and the company designing it is required to follow the conduct

of transparency, risk assessment, intended use and so forth. However, to support innovation and to not halt development of AI, research activities and development of free or open-source AI is largely exempt from complying with the AI Act (*Artificial Intelligence Act*, 2023). It is reasonable to expect slower development of AI after the AI Act is adopted but it will be safer for end users of such systems, and it is important to value safety over rapidity even though the times call for impressive work on AI. To emphasize how much AI research and development and talk about needed regulation have increased, with the simple search prompt "AI regulation" filtered with the period 2000-2019, approximately 784 results are found of articles on google scholar. With the same prompt from 2020 to 2023, 3 330 results were found. In 3 years, the published articles that include comment or mention of AI Regulation have more than tripled over the amount from 20 years of research which is the period where smart phones were invented and the massive user base was exposed to AI systems such as Apple's Siri, as well as facial recognition, data directories in Facebook and so forth.

2.2.4 The challenges of AI in digital marketing

Before or during implementing AI in business operations a few challenges are identified by past studies. Challenges such as bias, control problems, privacy, intellectual property, environmental impact, how AI makes people feel, explainability, safety, security, job displacement, manipulation, responsibility, and synergy (Bulchand-Gidumal et al., 2023; Dwivedi & Wang, 2022; Kozinets & Gretzel, 2021; D. Kumar, 2023; V. Kumar et al., 2019; Wirtz et al., 2019). First and foremost, most marketers are consumers and won't develop AI themselves. They are thus at the behest of AI developers to develop the programs they need (Kozinets & Gretzel, 2021).

The challenges reflect this in several ways such as the accountability or responsibility the companies, either the users or developers, need to face if the AI software acts maliciously or breaks regulations brought in the future. AI can in turn change power balance and bring distraught if the synergies or integration are not placed right in the organizational map (Dwivedi & Wang, 2022; Wirtz et al., 2019). A key challenge, that is transparency, as stated by multiple AI Leaders in testifying to the judiciary committee is important to increase the safety and security of AI (Forbes Breaking News, 2023). Safety, privacy, bias, and job displacement are challenges AI development needs to overcome because they have the most chance to negatively impact citizens and may affect social acceptance and trust in AI (Wirtz et

al., 2019). However, an example in the case of job displacement, the AI software can't exactly fix it by changing. The responsibility lies more on leaders to assure workers that the job they possess can't be replaced as easily as it seems, and at the same time make sure that required training is held so the AI functionality can be an assistance instead of a full replacement to existing workforce.

The public sector is a relatively new sector for AI application (Wirtz et al., 2019), and as such the challenges that exist in the public sector is the most unknown field of hurdles development of AI faces. Overcoming these challenges might be a hard task, but no one has said it is impossible. As AI development for the public sector still is in its infancy new challenges will surely arise, and some might be solved in innovative ways. Still the major contributions for studying the challenges of AI have not come up with many solutions for said challenges. The reason for that might be that there is not enough knowledge yet for the implications and opportunities AI brings.

2.2.5 Value provision of AI in digital marketing business

A literature review by Enholm et al. (2022), organized the determining factors for value generation with AI in business and the research gaps surrounding them. The research paper provides a comprehensive review of literature, attempting to illuminate the ways in which AI technologies can be incorporated into organizational operations and to clarify the mechanisms that generate value. The review not only compiles the current body of literature but also delineates, 1. primary factors promoting and hindering the adoption and application of AI; 2. the typologies of AI utilization within an organizational context; and 3. the immediate and subsequent implications of AI usage. The paper further identifies gaps within the existing literature, thus setting forth a research agenda pointing towards areas necessitating in-depth exploration in the future.

To discern the mechanisms through which AI imparts business value, Enholm et al. (2022) have meticulously synthesized the prevailing literature into a narrative review. This encompasses an array of AI applications, along with their potential catalysts and obstacles, and the impact of AI, notably on competitive performance. As substantiated by previous research, the mere implementation of AI technologies does not guarantee enhanced

organizational performance amidst the rapidly advancing digital society. Instead, it is the common interplay of these technologies with knowledge exchange that accomplishes this.

In the context of marketing application and the value provision in this sector, competitive edge is prevalent, as well as the focus on the prerequisites needed for AI implementation (Einholm et al., 2022; Kumar et al., 2019). Additionally, there is a difference in the discussion of long-term against short-term improvements.

Chapter 3 Research method

Qualitative or quantitative

Firstly, to understand the reasoning behind choosing the qualitative research approach we need to ascertain the goal of the study. Qualitative study can be defined as interpretive as the researcher uses non numerical data to obtain understanding (Christensen et al., 2014). The goal of this thesis is to bring new knowledge forward that aims to bring additional value to the ever-changing markets. We peg the study on marketing as a start in researching the phenomenon's presented using subjective views of the public. Therefore, we need to understand and interpret the research questions in an exploratory way, to pick up details, situational position, and outside perspective of the knowledge collected to answer the research questions (Christensen et al., 2014). Additionally, by using the qualitative research design we secure a foundation for future research to use and build upon. Also, the reason for not using a quantitative research design is the limited prior research done on the topic at hand and an established model for research is not pertinent (Christensen et al., 2014). Therefore, the questions the paper aims to answer is suitably connected to a qualitative research design.

It is important to note that this study will exclusively utilize qualitative analysis techniques, focusing on the interpretation and thematic analysis of textual data. Overall, the qualitative design offers a suitable framework to explore and analyze the public's perspective on AI and its relationship to digital marketing in a comprehensive and contextually grounded manner.

The choice of method in the qualitative research environment is netnography. Because of the virtual theme of the topic and the researcher's fondness of internet communities, and the clear uncertainty of the future of AI, the netnographic data can provide a data scope befitting to the research questions. Additionally, because of limited time and resources allocated to the study a netnographic approach can be beneficial for the completion of said study.

Netnography, rooted in the ethnographic tradition, capitalizes on the wealth of online interactions, behaviors, and shared experiences of internet users. It offers a unique window into understanding how contemporary consumers, technology enthusiasts, and even skeptics

perceive and interact with emerging technologies like AI in the digital marketing landscape. Kozinets (2010) describes netnography as a method particularly suited to tapping into the organic discussions and narratives that arise within online communities, giving researchers an unfiltered insight into genuine sentiments and beliefs.

For this study, selecting specific online communities and platforms becomes crucial. Digital marketing forums, AI discussion boards, and tech-savvy social media groups provide a fertile ground for gathering data. The inherent anonymity of the internet often allows users to express their genuine beliefs without the inhibitions they might face in traditional face-to-face interviews or focus groups. This makes the data obtained through netnography richer and potentially more authentic.

However, it's crucial to approach netnography with a degree of sensitivity and ethical responsibility. Unlike traditional ethnography where participants are aware of the researcher's presence, in netnography, participants might be unaware that their interactions are being studied. Hence, researchers need to ensure that data collection respects the privacy of individuals, avoids harm, and upholds the community norms of the platforms under investigation (Markham & Buchanan, 2012).

Furthermore, the potential challenges and limitations of using netnography should also be addressed. The vast amount of data available online can be overwhelming, necessitating effective strategies for data collection, sorting, and analysis. Moreover, the dynamic nature of online communities – where topics, trends, and discussions can shift rapidly – means that the research must be agile and adaptive.

In conclusion, netnography as a method holds significant promise for this study. While it brings forth unique challenges, its ability to capture the zeitgeist of internet communities regarding AI in digital marketing is unparalleled. As the digital sphere continues to evolve, understanding its pulse through methods like netnography becomes ever more vital.

3.1 Netnographic data collection

To achieve a justified and in-depth answer to the research questions by qualitative research, the method chosen for the task is netnography (Kozinets, 2002). Netnography is derived from the terms "Ethnography" and "Internet", where the ethnographic study is conducted on online

forums instead of with public fieldwork (Kozinets, 2002). The method was chosen for the research questions because of the high public consumer internet discussion traffic about the topic of AI. Also, the topic concerns mainly the virtual world where Kozinets et al. have defined this method as most suitable for (Kozinets et al., 2010). Elaborating further the method of netnographic study allows for collection of data on a large scale in little time where anonymous devotees or insiders on a forum is the main target to collect discussion and insight (Kozinets, 1999).

Netnography can provide rich qualitative data, capturing the voices and perspectives of the public in their own words, and allow for an in-depth exploration of the research topics (Kozinets et al., 2010). There are three types of data a netnographer can use for studies, collected data, co-created data and produced data (Kozinets, 2015). This type of data allows the examination and analysis of online conversations, social media interactions, forum discussions, and other digital platforms where people express their opinions and engage in discussions related to, in this case, AI and digital marketing.

The questions we are investigating using the methodology of netnography are "Can the public perception of AI influence value provision of business operations in Digital Marketing?" and "Can the public opinion of AI affect the development of AI in Digital Marketing?". The data we aim to collect can help shape these questions by analyzing their discussions and viewpoints collected with netnography. However, there are a plethora of different styles of communication, and one should always be critical of the underlying meaning of certain statements.

3.2 Data collection preparation

To prepare for the data collection stage of the research a few criteria must be fulfilled. The research questions must be fully developed and be made clear, and the online community to gather data must be suitable to answer them (Kozinets, 2002). Furthermore, seven criteria for the choice of the online community is identified in Kozinet's (2015) research. The criteria are as follows: the community needs to; be relevant to the research question(s), 1. have a well saturated posting environment, 2. have interactive flow of communication, 3. have a large number of posters, 4. have substantial communication mass, and have an energetic feel, 5. have heterogeneity which encompasses either a diverse array of distinctions or a harmonious

consistency of similarities, 6. have data that is more detailed and descriptive, capturing a higher level of richness and depth, and lastly 7. the community should be offering the netnographer a particular experience as a user of the site (Kozinets, 2015). These criteria are not required to be fulfilled perfectly; however it can be used to guide the netnographer in the direction of choosing the correct community,

The next step is to choose a community to use as main targets. Common communities to have discussions related to research about AI are, but not limited to, Twitter, Facebook, Reddit, Quora, Research gate, and LinkedIn. After doing a brief evaluation of the different forums, the one standing out from the sheer volume of users and posts, as well as different communities built into the same site, Reddit.com will be the choice of community to collect data on. Reddit.com was chosen for the reason of criteria fulfillment Kozinets (2015) suggest, which will be elaborated in full next.

- Reddit consists of over 100 000 active communities with every imaginable focus, (henceforth referred to as subreddits) (Reddit, 2023), and has accumulated a total of over 13 billion posts and comments site wide since the site went live for the first time. Subreddits related to the research questions and have a good number of relevant posts about AI and the connection to digital marketing would be: /r/futurology, /r/marketing, and more.
- 2. The site is accessible to everyone, but to post and comment on threads one needs a free account. Anyone above the age of 13 can register for a free account (Reddit Policies, 2023). Because of the thread and comment based system the interactiveness is reddit's building blocks of content delivery. Reddit's posting style will also be beneficial for netnographic study because of the organically produced interactions between members (Kozinets, 2015).
- 3. Reddit was as of November 2022 the 8th most visited website with 4.82 billion visits in the period September 2022 to November 2022 (Bianchi, 2023). The number of pieces of content produced in 2022 was 8.33 billion, whereas approximately 492 million was of unique posts, and 2.88 billion comments on said posts.
- 4. Reddit has 430 million active monthly users, and 52 million active daily users (Dean, 2023). The structure of Reddit allows for lively anonymous discussion between members of communities in the form of commenting on threads and responding to members comments for clarification or discussion.

- 5. The heterogeneity of Reddit is present in the way that both contextual differences and similarities exist in the different communities. However, the individual subreddits are mainly homogeneous as the concurrent topic is present and are not deviating from topical discussions. The users are again heterogeneous where different nationalities, their level of expertise, different activity level, and interests are implied.
- 6. The low entry requirement for the communities is an advantage reddit possesses. Where every discussion is welcome in whatever topic the user desires, if the discussion is topical to the selected subreddit. Furthermore with 3.125 million total subreddits it would be hard to find a topic that is not prevalent on Reddit (Dean, 2023). Detailed data is possible to obtain, however it requires a bit of searching as the massive number of different threads each subreddit possesses is hard to comb through.
- 7. The experience Reddit brings to the netnographer is as entering a room full of talkative people where different amounts of engagement is present. The netnographer can choose the discussions to take part in, or they can easily start their own discussion within an established community. This kind of experience is particularly advantageous to facilitate useful data for the study.

In conclusion, Reddit is a great choice of environment to use for data collection, according to the evaluation of the criteria presented above. Now we are ready to move on to data collection in the chosen environment.

3.3 Data collection

Before we collect data, we first need to define the approach. What data are we collecting? How will we find the data we need to collect? How will the data be collected? These questions are a key for understanding how the data collected will help clarify how it answers the research questions. As to how the date should be processed will be discussed in a later chapter.

Because of the structure of reddit, it is easier to find relevant threads by specifying the subreddit one wants to search for data. We did a rudimentary search on reddit.com to find relevant subreddits to search for data more specifically. With the keywords "AI" and "marketing", four appropriate subreddit communities were identified to further be filtered to find relevant discussion. /r/Futurology, /r/ArtificialIntelligence, /r/artificial, /r/marketing.

To clarify, this study focuses on the public opinion and perception of value generating AI in digital marketing and somewhat the future development of such applications. Therefore, to obtain data relevant to the study a natural discussion about the themes is favorable. There is however no need for the direct statement of AI value generation, but themes, experiences, and advantages that can be contextualized as value. The data collected will be anonymized and all, not relevant discussion, such as weekend plans or sarcastic remarks or arguments off topic, will be excluded from the analysis.

In this study, we used keywords such as "AI", "digital marketing", "GPT", "LLM", "machine learning" in combination with "marketing" to find relevant threads on Reddit.com. Due to the number of returns on the keywords, we decided to maintain the amount of returns from the query by setting a limit on minimum comment count and age for the thread to be deemed useful as data for the study. Thereby filtering the potential unnecessary or "dead threads" that would not amount to much valuable data. A comment count of at least 10 comments, and the period the thread was active at minimum January 2022, brought the mass of threads down significantly, to a more manageable amount. Afterward we read the threads to identify if the data it contains could be useful in some sense to the study. Kozinets (1999) identified four different kinds of posters on online communities, based on the poster's activity and involvement. The four groups are defined as tourists, minglers, devotees and insiders. Where devotees and insiders have the strongest connection to the community, and as such provide the most valuable data. Additionally the data we are mainly collecting is archival data, which Kozinets (2015) says is "data that researchers 'find', 'collect' or 'gather' from social media communities. Although clearly shaped by selection biases and observer effects, archival data does not bear the imprint of the researcher as creator or director. We might think of this type of data as establishing a historic record and a cultural baseline." (Kozinets, 2015, p. 281).

Furthermore, how the data will be collected is the method or approach of the physical gathering of data. In the netnographer case, this pertains to virtual fieldwork (Kozinets, 2015). Additionally, the tools used are important as converting the raw data into processable data to analyze is a must (Kozinets, 2015). On that note, we discovered that the manual labor of writing each comment relevant to the study is tedious and time-consuming work. This is why a python program was discussed as a possible collection tool. As it happens ChatGPT can write code if the right prompts are used. So, we managed to develop a code using the reddit API to gather comment data for us. This worked better than expected as the only manual work needed was organizing the data. For the study, the researcher ended up collecting data on 10

different threads, containing 990 comments in a relatively short time. The organizing of the archival data took approximately 2 days of work.

3.4 Data analysis

Kozinets (2015) advocates a digital coding approach for netnographic analysis "...analysis can be computational, and computer assisted. Digital Netnography uses all manner of computational elements to mine, extract, pre-code, classify and visualize data in the quest for culturally flavored, anthropologically informed big data insights; big data insights which move far beyond the norm on these qualities." This is why, with our dataset of over 40 000-word count, it is better suited for the digital method, rather than the manual (Kozinets, 2015).

Furthermore, by pre-coding data using digital tools, researchers can manage and analyze large volumes of information, identifying patterns and themes that might elude manual methods. This approach to netnography is particularly effective for tracking the evolution of online communities, monitoring the spread of ideas, and understanding the impact of digital culture on consumer behavior (Kozinets, 2015). It provides a lens through which the digital landscape can be seen not as a series of isolated incidents or conversations but as a complex, interwoven tapestry of human interaction and cultural production.

The codes were developed and linked to the comments, by analyzing broadly by focusing on the addition of value as a focus. The program NVivo 14 was the program used for the coding and organizing of data. In total, 92 different codes were developed. However, in terms of the exploratory nature of this study, not all the codes were directly related to the value or development of AI in digital marketing. But they were used to identify natures, feelings, attitudes when the discussion of the topic was conducted.

Our dataset of 10 threads of archival data was coded entirely. In total 990 comments were coded and analyzed, which amounted to roughly 41 600 words.

Chapter 4 Results

4.1 Value of AI in digital marketing

The groups of value identified in this study are, AI efficiency and Business Integration, Capabilities and Limitation, Human-AI interaction and management, AI's role and development in marketing, public perception and Engagement with AI, and economic considerations and Value assessment. Most of these factors' comments are linked with the goal of identifying the worth of AI implementation in digital marketing.

These groups are purely identified by studying the data collected, to define them as the value aspects of AI in marketing as well as presenting the findings in an organized manner. And as such are not mainly rooted in other theories, but the researchers own understanding of them. However, some other studies presented as we further explore the results in the analysis have similar aspects and focus.

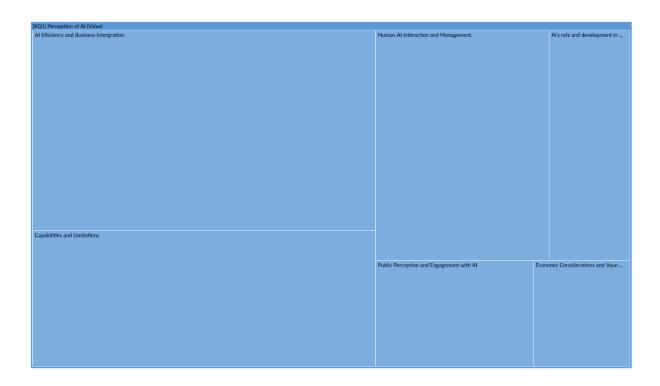


Figure 1. Hierarchy chart of identified groups in value.

4.1.1 AI efficiency and Business integration.

The most common theme among the efficiency and business integration aspect is time usage. Where saving time seems most important for the value of AI in digital marketing. Multiple statements are identified as positive personal experiences with no major pushback from the unexplored field. Efficiency improvement is also a major identifier as well as the statement that "AI is here to supplement tasks, not replace the employees doing them". There have also been mentions of people or businesses who have already implemented AI in the normal workflow. Furthermore, some other identified mentions of increasing efficiency, in a broad sense, have been identified and implemented in this group. Saving time is widely discussed as a source of efficiency and increases the opportunity the businesses must focus on other tasks and evolvements. (Wang et al., 2019; Kocher & Sutter, 2006; Payne et al., 1996). And as such it is important to bring forth time saving as a dimension of value. Some examples of people's perception on time saving with AI are as follows.

"This is the use-case that I've found invaluable - to generate ideas, and then take one idea and develop and outline, and then take each of the points of the outline and expand on a few talking points. I

Just last week I took some strategic messaging, and had it produce iterations of value propositions (using all kinds of verbatim technical terms of features and benefits that came up in a series of VoC with internal stakeholders). IMHO it saved me several hours' of work."

"My partner has already found a huge speedup in generating her monthly content plan and captions for lifestyle and feel-good posts."

"It saves me hours from not having to read/skim shitty search engine optimized continent.

If I want a recipe, I get a recipe.

I don't get a story about how their dog died from cancer which caused them to go on a spiritual journey to find themselves.

Just a recipe."

"It's great for coming up with catchy titles too. You can just plug in the topic and have it come up with 5 catchy titles or marketing style titles. Then if I want to weave in some pain points, it can rework the titles.

So many hours were saved last week using the tool."

"It's a true time-saver. You might still need to refine and personalize the output, but it cuts down the time spent on brainstorming significantly."

"The sweet spot is when we can have a unique perspective while being informative. For example, our Tech team have a unique perspective, but are awful at being informative. Our marketing team are great at informing but terrible at having a unique perspective.

If we can help the tech team by just generating ideas or an outline, we will already save SO much time and money."

"Yes we use chatGPT for copywriting. We use mid journey for images such as ad creative or email headers or website imagery. Also we use mid journey for ideas for website designs ideas. We use fireflies for meeting transcription, summaries, and action items. It's honestly made us probably 20-40% more productive and quicker."

"I'm not using chatgpt in as complex manners as you are but I've recently used it in some of my processes and am loving it. I was super skeptical when setting out too but I've learnt that the more detailed your prompt, the better the output.

I have colleagues that give presentations at conferences and sometimes per conference my company will do 5+ presentations. I am tasked with coming up with a blog that summarises the info shared in each presentation as thought leadership content. Leadership plus sales typically want this ASAP so they can share with clients - they'll be asking me for tidbits they can share the moment the conference ends.

the turnover is tight and god, post conference season always made me want to fling myself into the sun.

now, I simply clean up the video subtitles and feed it into chatgpt and it generates a very decent summary - blog style, subheadings and all. of course there's still some editing to do but it cuts down time significantly.

then I can make it generate social media snippets too from the summary itself. it's also original content that I'm feeding it so I think the output is pretty darn good"

There have also been a couple of cases of not improving time management as much as expected in comparison to the growing interest and sudden "hype".

"Ok, but how much time does that take? I found it faster to just write draft myself rather than fiddle with "meh" output from the ai."

"Less than I thought initially.

When I tried ChatGPT for the first time I was probably spending 2-3 hours a day on it exploring what's possible.

I run a PPC management agency and at this point I use it like twice a week to get some inspiration for ad copy and angles. But 95%+ of the copywriting I still do completely manually.

If you are really heavy on content marketing I can imagine it speeds the process up a lot more."

Furthermore, the aspect of efficiency is also present in discussions about the use of AI in marketing. Which is closely related to time usage, and productivity. Which in turn can generate more valuable strategies, and management in business.

"You don't even have to be a smart historian to see what highly efficient tools do to an industry. But there have only been a few tools like the cotton gin in white-collar work. The printing press and computers come to mind, but AI is a cotton gin for a lot of white-collar creative jobs."

"I think that's a very naive assessment, AI (not chatGPT as such) is very much taking jobs already

In my creative agency we are already using AI tools which do the jobs of multiple people more efficiently and to a better standard (graphics creation for example), some of that team have been let go

This trend will only expand"

"I'm a content specialist and that's my experience so far.

A lot of my content involves re-writing existing material to various degrees, and Chat4 is absolutely amazing at this."

"

"I think there's a general efficiency problem that AI addresses. I also use ChatGPT a lot in my workflow, and I've used midjourney for some basic storyboarding and similar. Even if I still need a copywriter/editor/designer/etc to punch up the work or get it over the finish line, it takes them far less time. This means that more work can be done by fewer people."

"Agencies that exclusively deal in generating content have content directors and specialists to identify right topics, keywords and call-outs that hello in creating content guideline before a brief is created which then moves into content creation after client's approvals. Often, these briefs are bang on the buck. And the quality of content that comes out of these briefs are top notch, extremely researched and fast for quality that goes into it. And it's costly.

OP mentioned they invested in content specialists to refine the inputs/outputs of ChatGPT. This is the correct move. This is how you make marry technology with existing workflows instead of disregarding it. Well it be as high quality as the above? No. Will it help in improving current quality and speed? Absolutely. And that's what you need to survive. Incremental improvements.

I'm not sure how your relationship is with documentation of processes, but this is the right time and stage for you to start living in the documentation world. Ensure everything you are involved with is documented in the agencies archives; or at least in your personal journal. This will take you a long way in your current career path."

Interestingly, a lot of comments discuss the goal of AI, importantly the function of AI tools as augmentation to already existing operations and tasks marketing agencies, or parallel fields envelop. Some statements discuss the fear around being replaced by AI, and as such negates the notion of an exclusively AI driven business in the marketing franchise.

"AI is a tool to be utilized, not a replacement to be threatened by"

"Do you really think a middle manager or executive is going to run GPT, review for accuracy, edit it to get around crawler detection, and even go through the work of copying and pasting it all to a content platform?

Training and operating AI, understanding how they work, and knowing how to submit effective queries is a whole skill."

"Id still prefer to hire someone who knows a thing or two and allow them to use it if the wanted as a tool if it helps"

"The democratization and newfound ease of copy generation via AI will create way way way way way more noise.

Truly effective writers already know how to transcend the noise — more noise only makes them more valuable.

To scrap your human writers for this is a poor marketing decision imo. OP's company will be ignored in the great tidal wave of mediocre content that's coming."

"I believe AI in its current form will not replace anyone. I think it will be a tool to make some things easier like content creation, headlines, etc. I think for future students it may be best to not be afraid for new opportunities, but learn how to use them for future success."

The comments on this topic are focused on reducing fear for being replaced, and the acknowledgement of the possibility in the future.

"I understand your anxiety regarding AI and marketing, and it is a very real world concern. I believe there's a better way to approach the topic. Instead of asking, "Because of AI technology, what should I avoid so my skills don't become obsolete?", consider flipping the question on its head and asking, "How can I utilize AI technology to become a top-tier digital marketer and establish myself as an AI marketing expert?" This mindset represents the future of the industry. Although there are no definitive solutions at present, embarking on this path will undoubtedly position you as a rising star among marketers."

"You should follow Sinead Bovell on TikTok. She'a an MIT "futurologist" and gives good insight into how AI will change the workforce.

She said copywriters, educators, developers, etc who can't or refuse to use AI as a tool will struggle. But if you embrace it and learn how it can augment your work, then you won't be steamrolled by it."

The deployment of AI in business is streamlining operations across various sectors, from automating content creation to enhancing marketing strategies. GPT serves as a prime example, demonstrating AI's potential to generate significant efficiencies. Despite AI's growing role, human oversight is essential to tailor and refine the outputs to specific business needs. One sample in particular explains this well.

"It wrote 60+ product descriptions in seconds. I used an add-on with google sheets. Set up took and hour and I had to tweak the settings and prompts to get what I wanted. It took a couple hours to edit but it would have taken me a weeks to write. I also had to translate everything in french. AI does a WAY better job than google translate.

(Side note, I've connected my website to the data in the file and it creates a page per product.)

Now I'm making a list in sheets of my client base and the details so I can personalize emails. I've ran a few tests and it's outstanding. It's a bit of a puzzle and the data I need for promts takes a while to put it but I only have to do it once. I even used AI to fill in details on companies it can find on the web. I want it to be robust enough so I can use it for a lot of options. I'm sure there's stuff I can do that I haven't thought of yet.

I'm the business owner and it's huge that I can have this much control on that kind of scale. It's a niche market and outsourcing work is always hard."

4.1.2 Capabilities and limitations.

Capabilities and limitations of AI can affect the value increasing aspect, as such if it is hard to adjust the AI to fit particular use cases. This may in turn affect the spread of use in different markets. In a sense the capabilities may be the drive for popularity and effectiveness, and the limitations are the breaking point when the use of AI does not fit a particular business model. The samples identified in this group discuss largely the acceptance of AI, and its use cases, mainly sparking imagination. As well as the hurdles businesses must overcome when applying AI tools in regular business. Some statements discussing this are:

"It's useful for anything that does not need to be original and rigorous.

The most powerful use case I've found is to use it as a guide to relate terms and topics. It can also give definitions of related terms and explain the nuances, or search synonyms within a specific context.

So use it for inspiration, maybe to write outlines. But don't use it to write whole texts because it's filled with inaccuracies and it'll make you look like a base human being without a personality (not to mention that search engines can identify AI-written text)."

"I've been using it to help create ideas for articles and blog post, experimenting with creating captions and hashtags, and simplify complex, long form articles or research papers; that last one really helps when i need to summarize something for a proposal or presentation."

"...tldr: I personally wouldn't depend on AI for anything creative or to replace my work, but it's been a great tool for generating possibilities, speeding up my documentation processes, and creating a starting point when I've got writer's block."

"100%. I think of it as a tool that helps people with awesome ideas -- who may not be great writers -- convey their ideas. Human or robot, no first draft is ever ready for publishing."

"To find stuff and to find reliable sources to find more stuff. To summarize things junto bullet points and review grammar, spelling and tone of voice of my own writing. It's been useful to get more options and edit it myself afterwards. I also used once to solve something I was having trouble with on Excel, which saved me a lot of time because I definitely couldn't learn how to do that quickly if I were to watch a YouTube video or follow a tutorial."

As well as a sparring partner, AI could be better than humans at certain things. As stated by some commenters.

"Honestly it's better than our interns and faster and would have to cost quite a bit to make it not worth the cost."

"> To me it's at about the level of an intern or fresh college student

This, except way cheaper, way faster and way more accurate. I can get more usable content from ChatGPT than in literally two full weeks from multiple interns."

However, some commenters have stated that AI will have severe limitations and will not be able to generate significant results for improvements in general marketing operations. This is stated by personal experience and critique especially for ChatGPT.

"Any attempts to use it for things like copy has been pretty laughable, though. And as a hiring manager, I literally read a cover letter submitted to a role a month ago that I'm 95% sure was drafted by ChatGPT, so it's definitely more obvious in cases when using personalized approaches works better."

"If you honestly believe that AI copywriting is going to rival quality content from a human, you either:

- Have comically underestimated the ability of AI at this point in time
- Have no understanding of what copywriters, designers, or content creators actually *do* for a living

Spoiler Alert: you're not paying for the *words*, you're paying for the expertise to know *which words* to use and *why*.

But sure: if you want all of your ad copy to look like the copy from a shit-tier Amazon bargain bin listing, go right ahead and go with the AI. Just be ready to defend your decision if or when your company loses more than 125K in sales per year.

There are things you automate -- and things you don't. Your marketing content is not one of them."

"This is 100% aligned with my experience. Language models in general have no sense of logic or reason, and are always at risk of sounding reasonable while being flat out wrong."

There are significantly more positive views on AI than negative views, generally the positive discussion is fueled by the need to share experience and assure each other that it is worth investing time into. Also, the negative statements are not necessarily wrong, they have some good points and explanations behind their critique of the highly popular tool ChatGPT.

4.1.3 Human-Al interaction and Management

In business, AI, especially language models like GPT, may act more as a digital assistant than a replacement for human workers. Despite its ability to quickly generate drafts and perform routine tasks, it's experienced that AI requires human guidance to ensure quality and relevance. The effectiveness of AI hinges on the user's ability to provide detailed prompts and perform rigorous editing. The consensus among the public is that AI's role is to support and amplify human skills, not to make them obsolete. Consequently, the human-AI partnership in business operations is marked by a blend of initial efficiency gains and ongoing necessity for human oversight. The statements collected strengthen this theory as presented:

"...Once passed the initial awe effect due to novelty, I've dug deeper into its capability and found out that it requires a lot of supervision and correction in specialised areas to be actually useful."

"It will only be as good as you. It is a responsive device. Feed garbage in, get garbage out. Gamble your capital at your own risk."

"I treat it like a junior copywriter a lot. I'll have it spit something out, then I'll tell it what's wrong with what it gave me, and it'll tweak. I'll usually do a few rounds of that, then I'll turn what it gives me into a final draft. Often times the hardest part is just getting off of a blank page. ChatGPT makes that super easy."

"You should learn all you can. You may not bye able to make a living as a copywriter in the near future, but you may find yourself asking GPT-4 for copy. You'll need to be able to evaluate it, ask for changes, and make it work. I treat it like a junior copywriter a fair bit. It gives me a draft, and I have to go back and forth with it to get it right. My skill as a copywriter makes that possible.

AI has a lot of raw ability, but it still needs a person in the mix to make it soar. The best things you see from current AI are made with the help of people who understand the subject matter and the way these programs work. That's going to continue to be true for a long time."

"AI needs to be lead. You need to know where you need to lead it and that requires know about the subject. The best way to learn is to get your hands dirty."

"I use it to brainstorm social copy and help me find specific things when I'm writing for example I was writing copy for a sports themed page so I had it give me a list of sports idioms for me to use.

I find it's almost unpublishable from the first draft; it's like getting copy from a very green intern. I rewrite most of it but it does make me faster."

"You're going to want to pull people in that make slight adjustments or improvements to chatGPT's suggestions. For example, chatGPT can code far faster than any human that I've ever met, but its code has slight bugs and problems that a decent coder can go through and catch while transcribing it. In this way, chatGPT is a better assistant than it is an employee for basically any field. This makes sense, after all its official name is OpenAI Assistant. So, you may have decent luck, but I would recommend actually having people review your work."

"you have to feed it information, everytime I ask it to write stuff it barely adds it's own info. it just says a whole bunch of nothing in between the info u gave it"

"A lot of people here are assuming that humans aren't proofing the output and I'm just copy/pasting whatever it spits out. This is not the case. Just like a human, it goes through about 3 levels of seniority before it ever sees the light of day."

"OK. I run a marketing consultancy and am on track to pull in \$350,000 this year with a one person show. And I have built several AI apps to automate tasks which used to be pretty complex.

For reference, my work spans marketing strategy, conversion, copywriting, content creation, analysis, graphic, design, and web app development.

So yeah, I understand the technology. but I also understand that computers can't actually think. AI is just fancy pattern recognition and predictive text at this point. There's a reason the number of tokens you can pass to and from chat GPT is limited: the results start to fall apart into a goofy mess if they get much longer.

It's words (and code) that look right but have no meaning.

This is what drives me crazy. AI is an important step forward, in the same way that the typewriter saved writers from having to produce drafts by hand, or desktop publishing software changed graphic design. It will obviously have an impact on how work gets done. But the idea that it's going to make pursuing a marketing career at this stage irrelevant betrays a fundamental lack of technical understanding about how AI works. It cannot actually think or

create meaning. And until it can, which is likely decades away, it will require a human strategist to guide input and refine output.

How can one know if the output is good? Unless one has learned Marketing? Unless One understands human psychology, and knows what people will respond to?"

"In plenty of cases, the results are in need of human editing. (Like when they're technically right but meaningless, ie "at Doggie's Natural Dog Treats, you'll fine the most natural dog treats for your dog." No shit, robot.)"

4.1.4 Ai's role and development in marketing.

AI in marketing keeps evolving in a manner where the support of decisions is the most important aspect (Ljepava, 2022). This ties in with management of strategies containing use of AI in marketing. As we will present the findings, we want to show the dynamic field of marketing, and that AI's role is evolving from a novel innovation to a core facet of strategic development.

"I've been building a suite of AI marketing tools that are of tremendous benefit to me and my customers. I have also been using ChatGPT daily to improve productivity in general business, copywriting, research, content creation, social media, and more. I'm all in!"

"Honest answer? They solved my problem and it was finally time for me to learn JavaScript lol. For the record, these are web apps, and little tools that help me do things like "suggest categories/tags for 4000 blog post using a pre-built taxonomy, and by analyzing the post content." Or, "Rewrite the internal page excerpt to include the target keyword.""

"I think I should've been clearer of what we're using AI for because the public-facing content pieces seem to have garnered the most attention, probably because this is a marketing group and most people work at marketing agencies.

We are not a marketing agency. We have to write pages and pages and pages of content that will only be used internally. I would say 10% of what's generated by AI is seen by the general public (explainer content, a social post, a website project summary).

We're talking about ChatGPT reading a 40,000 word transcript and summarizing it into 10 bullet points for a client pitch, or replying to an email with examples of past work.

Instead of five different people extracting whatever they need from that transcript, a robot does it now."

"I write code and it's been super helpful for that. I'm terms of marketing the best one I've found is making images."

"I agree, ChatGPT is an amazing tool, but I cringe when people suggest just using it to automate writing blog posts and shit without any actual effort by people into making the content special. This seems like the most sterile way to do marketing content. Hopefully the numbers work out, but to me it feels like it may be leading to a scenario where OP can show they get X amount of blogs out more quickly now, but curious to see how that translates into actual revenue. If it reduces costs, but doesn't add a lot of revenue then dunno if the value is necessarily all there."

"AI is part of the tools of a marketer, like computers are. Did they take many jobs? For sure. Did they change our jobs? For sure. Will it take my job? I don't think so, and I never felt threatened by it. But I never planned my career to do what AI does, and marketing has always been related to big changes."

This last statement in particular captures the essence of marketing in the context of technological advancements. It acknowledges the transformative impact of AI as a tool, akin to the advent of computers, which both disrupted and enriched the marketing profession (Hoffman & Novak, 1996).

4.1.5 Public Perception and Engagement with AI

As the conversation around AI's role and development in marketing intensifies, public perception remains a mosaic of skepticism, curiosity, and endorsement. Some remain unimpressed by AI's current capabilities, while others see it as an underleveraged tool poised to reshape the marketing landscape. From the tentative exploration of AI's potential to the deliberate integration of these systems into daily operations, the discourse reveals a spectrum of engagement. The public grapple with AI's practical applications, debating its influence on content quality and the future skill sets required in the industry. This introduction sets the

stage for presenting diverse viewpoints on AI's emergence in marketing, reflecting a field in flux and a technology at the cusp of transformation. The statements connected show a broad need for increased knowledge of AI, or general knowledge for the AI tools that is to be implemented in a normal marketing environment:

"I'm very interested in extensively training a model that is very particular to my profession, then selling access to the model as a subscription service."

"I like to think of things like ChatGPT or OpenAI as cloud oracles. Not Oracle.

Oracle. The kind that acts as a medium between you and big data."

"I've been building a suite of AI marketing tools that are of tremendous benefit to me and my customers. I have also been using ChatGPT daily to improve productivity in general business, copywriting, research, content creation, social media, and more. I'm all in!"

"Copywriters are in jeopardy because AI can produce "good enough" marketing copy right now, but it will be years before AI will replace any position.

You should learn everything you can. No one knows what AI will replace. AI will likely fundamentally change the industry entirely but concepts won't change."

"This is what drives me crazy. AI is an important step forward, in the same way that the typewriter saved writers from having to produce drafts by hand, or desktop publishing software changed graphic design. It will obviously have an impact on how work gets done."

"There was a generative AI conference a few weeks ago and Jasper's rep summed it up well:

Before the internet, the biggest budget won. After the internet, the quantity of content won. In the age of AI, the quality of ideas will win.

I think we're going to see websites optimised for AI, likely written by AI, eliminating the need for Buzzfeed SEO clickbait that's churned out by interns. I've even heard BuzzFeed is now generating half its content with ChatGPT.

Instead, we're going to see demand for generalist marketers who understand another field -tech, design, healthcare, e-commerce, etc -- so they can offer more valuable insight or, what
the Google algorithm now calls, "helpful content."

A lot of the comments here are talking about how ChatGPT can't write meaningful content, and they're not wrong. But most content writers can't write meaningful content, either.

So ChatGPT will displace *those* writers, while opening doors for non-writers with meaningful ideas."

"Anyone not using this right now isn't just "missing out", they're going to be left behind."

The skepticism for AI pertains to the novelty, or just another "next big thing". Where they comment on the use case where they did not obtain the result they were looking for.

"I played around with this but was unimpressed so far. Maybe I should test more"

"I agree I've found this "next big thing" to be vastly overrated."

"Not really. I end up having to rewrite anything it gives me. Stopped using it. Novelty wore off"

"As a content writer, I can tell you that chat GPT is not that great, even for speeding up how fast I do work. Sometimes it's helpful for brainstorming ideas I can work with, but I would never in a million years give something chat GPT spit out as a final deliverable. You're good, just got into an area of marketing you like and are good at."

"I've tried gpt in several cases. For somethings it works. Like seo keywords or summarize and translate text. For creative processes like coming up with concepts, tag lines, copy from a brief etc it is very uninspired unoriginal and basically what anyone's first guess would be. I would really want to see some before and after results of this because I have really sent some time prompt crafting to see a use case but it has not met my (or our clients) standards in any regard."

4.1.6 Economic Considerations, and Quality vs Quantity

The intersection of AI and economics in marketing is important, where the balance between cost-efficiency and content quality is examined in the results. As companies leverage AI tools to produce content, the economic implications are significant, with some statements reporting substantial savings and increased productivity. However, some commenters gripe about the quantitative approach some businesses utilize, to pump out lots of meaningless content. The results from this group shows exactly this:

"Ya but who's really gonna follow that when they can cut costs and save millions

Any company paying attention to results and/or quality."

"The biggest gripe in the comments on my original post was that it would replace copywriters. It did to some extent. We have been able to reduce the turnaround time for first drafts from weeks to seconds, saving £2,000 to £2,500 per piece and let us create tighter content deadlines that keep us relevant. However, it's let us hire a separate copy editor who specializes in our industry and can input feedback for changes, which costs ~£200 per revision. It's money that would have been spent anyway with our content partner, but now with a negligible turnaround time because we can manage this completely in house."

"By just changing how we're approaching content (putting strategy before quantity), we've eliminated £96k from our FY24 content budget that was sectioned for knowledge gathering and first drafts. We then invested the surplus in visual branding and a new content strategy hire."

The consensus of the quality vs quantity is emphasized by the sheer amount of content already being generated. However not much data for discussion on the topic were discovered but some valuable insights were identified.

"Generative AI is going to give marketing leaders the WWII-Soviet-Army option of drowning their problems with overwhelming amounts of average/below-average content and analysis for relatively little money. That's going to be a huge deal for some things and not matter at all for most things, especially when everyone is doing it."

"I'd take an original piece written on a typewriter over an unoriginal one written on ChatGPT 100 times out of 100."



Figure 2. Word cloud of themes identified for RQ1.

4.2 Public opinion and development of AI

The public's engagement with the development of AI in everyday life has sparked a widespread discourse, revealing a collective curiosity and an array of expectations about its potential impact. From the casually intrigued experimenting with language models to the critically minded questioning of AI's current capabilities, the consensus is a blend of optimism and skepticism. While some marvel at AI's ability to simplify tasks such as content generation and language translation, others remain unconvinced, highlighting issues of data privacy, content originality, and the technology's reliance on human input for quality assurance.

Economic considerations also feature prominently in these discussions, with debates about AI's cost-effectiveness versus its potential to displace traditional jobs. People ponder the balance between the affordability of AI tools and the quality of output they deliver, considering the possible need for human oversight to maintain standards. This introduction

presents a snapshot of public opinion, shaped not by professional insights but by the lived experiences and perceptions of the public, as they navigate the evolving landscape of AI and its role in their lives. The identified groups of codes for the results are as follows, Ai's Economic and Operational Impact, AI Practicality and Industry Perceptions, Comparative Analysis and AI Positioning, AI's Role in Knowledge and Content Generation, Public Understanding and Education of AI.

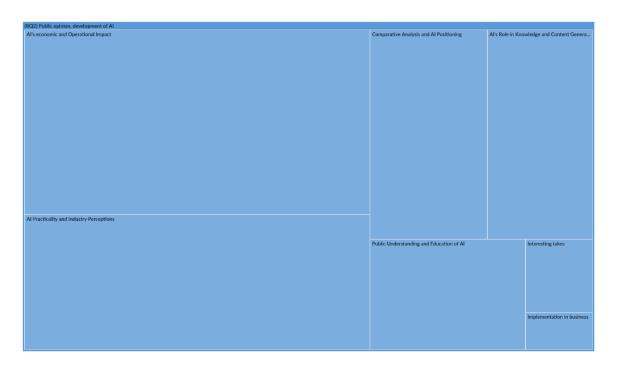


Figure 3: Hierarchy chart of identified groups for RQ2.

4.2.1 Al's Economic and Operational Impact

The most common theme in discussing future development of AI is the price of it. How much of a budget should one expect to delegate to the AI tools being developed and rolled out to markets, is the general sense in the discussions. Some speculate on AI's role in reducing the need for certain jobs, while others foresee a new equilibrium where AI complements human labor rather than replacing it. The speculative discussions of the price of AI seems less negative, in a way that the public are not shying away from AI tools with a monetary cost. This shows that the market for AI tools need to be easier available or less costly for future implementation. However, some speculate that the cost of AI will be equivalent or more reasonable for businesses:

"Do you actually have to pay for this?"

"Good idea, I'd just expect your cofounder to require a hefty raise in the next 2 months. ChatGPT will be a paid service soon and I suspect it won't be cheap."

"I don't have the money to try any of them."

In the case of the AI application ChatGPT, the predictions of it being priced for more functions or better models was spot on. The monthly subscription fee for ChatGPT, is currently \$20 for access to GPT-4, the more powerful model of the two publicly available models.

"One thing to keep in mind with pricing and cost is that like GPT-3, ChatGPT will likely start charging sometime in the coming months. It won't likely be a lot per generation, but something to keep in mind."

"The paid-for models will be almost current and have far fewer restrictions. That way they the always have a low-expectations model to train on new approaches and maybe even generate new content to help better train the paid models."

"Good idea, I'd just expect your cofounder to require a hefty raise in the next 2 months. ChatGPT will be a paid service soon and I suspect it won't be cheap."

"Yep I agree. Google Ads are super advanced and dynamic but if no one is searching on Google anymore, what good is it?

Although I do think Chat GPT will become a paid service sooner than later"

"I think what you're doing is a worthwhile thing to explore with your team. You should for sure be honest about the pricing though. Yes its free for your purposes right now, but it will not be free forever. The more you integrate it into your business the harder it will be to remove yourself from whatever price point GPT decides to push on users. Just make sure you talk about the risks alongside the rewards."

"I think it all comes down to how expensive it is once it is out of trial mode.

My team has extremely tight budgets and are constantly trying to get more mileage out of existing content. I have found the ChatGPT to be pretty useful at writing new emails if I provide it with existing copy off our website or previous emails."

The operational aspects of the development of AI for marketing purposes are the change aspect. Where multiple commenters have speculated on the theory of another change in the marketing industry as we know it, much like the first statement depicting the current era as the same magnitude as the PC had for the industry.

"...Also, just like the PC gave businesses access to desktop publishing and changed the commercial market for publishing and layout, so too will AI and ad copy. AI can produce art, ad copy and do it free of charge..."

"Not a marketing person but someone from engineering, so speaking from the AI team, so to speak. chatGPT is a language generative model which means it generates things that weren't there. That's creativity. It needs to be lead of course but it would mean 100 writers => 10editors + chatGPT. There are AI or will be in near future that could do anything creative. We already have for images, audios and videos will soon follow. The more people use it, more stronger it'll get because it's being trained on more data. So if I were you, I'd learn how to manage and plan campaigns, what specific people to target. These are decisions based on domain expertise and product mix you'll be marketing and some external considerations which AI cannot tailor to."

"The point of this technology is to replace workers, just like technologies have done so in the past. Will there come a time when new tech causes so much productivity that much fewer employees are needed? It's happened already and it'll happen again.

I'd also reckon that their technology has resulted in a loss of negligible amount of jobs so far, but I doubt that'll remain the case for the foreseeable future.

When will that change? Idk, but it will happen, and probably sometime soon, methinks."

"AI obviously doesn't spell the end for any industries, but it 100% spells the end for how a lot of work in most/all industries were being done before AI"

"Though we can't deny the reality that generative AI is going to have an impact on the way marketing and media companies operate, it's far from game over."

"Will the day to day role change? Of course, as it has consistently over the years."

4.2.2 AI Practicality and Industry Perceptions

The practicality of AI and its perception within various industries are subjects of lively debate. Discussions delve into AI's operational efficiency, with some lauding its ability to streamline processes, while others caution against its potential to usurp jobs, particularly in creative and copywriting fields. Skeptics highlight AI's limitations in originality and its propensity for error without human oversight. Meanwhile, proponents point to AI's scalability and potential to enhance human productivity. Concerns over privacy, data handling, and legal obligations add complexity to the narrative, especially for international users. The statements provided, covering the anxious nature of mass layoffs are as follows:

"So in other words, we writers are out of a job. Great. Can't wait for the layoffs to start rolling out."

"Maybe right in the short term but hilariously wrong in the long term. A.i. is going to put damn near everybody out of work in less than 30 years."

"AI competes with workers in an industry already known for mass lay offs."

"Interesting. So from your POV, assuming that the type of workflow that you have outlined will be improved upon and used by others within the industry, what impact (if any) do you think that it will have on the job market for your industry? I suspect that eventually, it will lead to job displacement for many of the workers while the few who adopt the technology early on will benefit immensely. Thougths?"

"My company has already started to replace the marketing team with chat gpt"

"I would say stay away from copywriting, blogging, and other creative written content areas.

AI isn't there yet where it can replace people but is good enough to turn a group of 100 writers into 10 editors, which will just make those areas more competitive for new people to enter. In the future, I imagine a lot of loyalty marketing and data science functions will also be replaced as machines could more easily identify trends from customer data."

"I think that's a very naive assessment, AI (not chatGPT as such) is very much taking jobs already

In my creative agency we are already using AI tools which do the jobs of multiple people more efficiently and to a better standard (graphics creation for example), some of that team have been let go

This trend will only expand."

However recent studies have shown that it may not exactly be as the public thinks. Rather than the complete elimination of humans in a company, the more likely scenario is some mix of both depending on the industry (Farrow, 2022). Although this is the case, the public would need assurance that AI won't be taking their jobs from credible sources, or sources that they trust, to limit the amount of anxiety found in current times.

Additionally, some samples emphasize the reassurance that the workers won't be replaced by AI.

"No but they'll outsource this Ai work to digital/ad agency and not actually hire a lot of junior resources who do the copywriting, proof reading etc"

"Much more smarter people than you say it themselves that they can't predict what's going to happen. Plus, so many predictions of the future were plain wrong.

But here you are, full of your doomsday claims."

"Exactly, ChatGPT isn't going to be providing innovation or true insights. There are uses for it, but these are not within its wheelhouse because it fundamentally doesn't work like that."

"I'm really glad you posted this. The fear of becoming obsolete scares people and often brings out the worst. I've noticed this in my own attempts to implement it into our company. However it has helped identify those worth keeping and those trying to slow down the ship. It's fascinating how you've implemented this on so many levels, I hope to get our company this integrated and improve the quality of life of everyone there."

"You're ignoring the legal, privacy and other related violations that ChatGPT will generate for non-US business.

It's not a magic bullet. It will not solve all the world's problems."

"The latest advances in AI are impressive and any industry needs to keep a close eye on trends to understand whether they pose serious threats. But letting a culture of fear dominate isn't wise either. This is not the first time that imposing new technology has put the future of whole industries under question."

4.2.3 Comparative Analysis and AI Positioning

It seems that the public identifies AI as a competitor to google. Especially in the case of translation, of which ChatGPT performs impressively (Kalla & Smith, 2023). Another use case is the improved version of Bing, which is also a search engine, with ChatGPT implemented into it giving both search results plus generated summaries or whatever one would like when prompting the search engine. Pushing the current search engine applications to a new level. The data collected was done before Bing was released and as such no comments regarding the experience was collected.

"Yeah it's pretty interesting how google is becoming more and more unusable for quick & fast answers. Ironically content is becoming zero attention span, yet simply finding the answer to something is taking more effort than it used to.

ChatGPT is solving that, and you have to wonder if Google is worried about the longevity of their core product now."

"...Google seems to translate word for word and it often doesn't turn out right. Gpt is language based and results sound more natural. Also, culturally french expect stuff to be much more formal whereas English can view casual text as charm. Changing the tone is easy in gpt."

"ChatGPT is fluent in multiple languages."

"This thing is going to give google a run for it's money that's for sure."

"I'm not talking about a hack for Google. I'm talking about asking chatgpt questions instead of Google. Replacing it. It's easier than using Google and more useful."

"Chatgpt has the same answers and can actually understand natural language.

Ever needed to ask google something but you can't phrase it in a way Google understands?

Chatgpt has solved that with 1000 other things it can do."

4.2.4 Al's Role in Knowledge and Content Generation Problems

Hallucination is a problem where the AI, especially in the case of machine learning models, "tries to generate content that goes beyond what it has learned from its training data." (Hatem et al., 2023, p. 1). This is a discussed topic when it comes to the reliability of the content generated by AI to be trusted. Also, the samples bring forth topics regarding what the AI knows, and liabilities it brings.

"Today the regressive prediction language model and underlying neural networks used by OpenAI actually does nothing more than repeat what it has been fed in large volumes"

"Seems like a bad idea unless you do a whole lot of sanity checks. Language models right now are prone to hallucinating and fabricating information, as well as telling you what you want to hear (sycophantic behaviour)."

"Similarly, the old prompt "The world record time for crossing the english channel entirely on foot" makes it talk about someone having walked from England to France along the sea floor, even at 0 temperature."

"On the downside it's actually made up studies that don't exist for me, which could prove awful if you publish sight unseen. Definitely fact check everything."

"It hallucinates often...usually confusing facts...sometimes just outright makes shit up."

"You absolutely will not. ChatGPT cannot do anything original. It can only regurgitate data that it's been fed."

This statement is refuted by another discussion attendee:

"You need to research how chat GPT actually works, it doesn't regurgitate anything. You're going to fall behind the curve because you refuse to learn"

"By employing a "first principles" approach we can unpack the hype surrounding generative AI to get a more realistic picture of what the future will hold for the media and marketing industries."

4.2.5 Public Understanding and Education of AI

The public sees the integration possibilities and suggests a cautious optimism. Users recognize that AI, in its current iteration, lacks the ability to fully understand and process data into a form of actionable intelligence that can be applied across diverse, unconnected scenarios. Practical applications of AI are expanding, with users leveraging APIs to break down and feed large datasets into language models for processing, showcasing AI's ability to manage and manipulate extensive information streams when guided effectively (Chen, 2023).

"There is no concept yet of understanding the data, extracting actual information, synthesizing it into a reusable knowledge, and applying it with real intelligence to new and apparently unrelated situations in a meaningful way."

"I wouldn't shy away from copy writing because there's still psychology needed. But I would certainly plan on learning the tool sets involved including AI."

"You still need to learn marketing. All of it. If you know the how things are done now, you will have an advantage when people are freaking out that things have changed. Definitely learn as much about AI as you can because it's here to stay. Good luck."

"i believe AI in its current form will not replace anyone. I think it will be a tool to make some things easier like content creation, headlines, etc. I think for future students it may be best to not be afraid for new opportunities, but learn how to use them for future success."

"Less people can do the same job with it; but it isn't useful if the person using it doesn't have a good foundational understanding of how to use it."

"no one was going to become a marketing master by coding my dumb app. It's this scarcity thinking causing baby marketers to panic instead of realizing they'll actually be able to spend more time on what matters.

If anything, the tools I create help the people I hire as subcontractors understand the more-important "why" and "what" to do rather than getting too caught up on the temporary "how". Tactics change constantly, but marketing strategy principles remain the same: do something worth earning attention, tell a compelling story that lets the audience feel like the hero (with your product's help), measure and optimize."



Figure 4: Word cloud of code group RQ2.

Chapter 5 Discussion

There are clearly different views about how well AI will perform in digital marketing. Some speculate the advantages and excitement about the advances as well as some fear for their workplace. Additionally, the development of AI as we know it is about to be changed a lot because of the sudden increase in public available AI models as is also discussed by (Nair & Gupta, 2021). The users' discussion collected as data for this study, are presenting themselves both excited and terrified of the change that is upon marketing as we know it. Furthermore, the perception of value in AI integration is identified as important for the purpose of evolving the marketing field even further. The discussion that follows this introductory paragraph brings forth the most important aspects of the results and how to further understand why they matter.

The most optimistic determining factor of the identified possibilities for increasing value in this study is the aspect of time. Especially the factor of faster decision making, efficiency, productivity, and more availability to do more value increasing tasks (Noy & Zhang, 2023). Attached to this is the affordability and if it is worth it to spend time on implementing AI to save time in marketing. This would be a topic worth exploring as it could be beneficial for businesses to learn how AI affects them, and this thesis has some groundwork for the public's AI readiness, less so of factual data from businesses on the cost accrual of AI implementation. The consensus for AI and effectiveness in marketing seems positive. Explained by multiple examples of AI implementation that brought the time of tasks down significantly, and in some cases even weeks of time saved by applying AI to their problems.

The constant need for management and audit of AI output is also in need of discussion. Early experience with AI applications shows that AI generated material needs monitoring and editing to avoid error (Tsigaris & Teixeira da Silva, 2023; Hatem et al., 2023; Dwivedi et al., 2023).

The conversations revealed that while AI enhances efficiency and can lead to cost savings, it also requires substantial human input for refining outputs to ensure quality. This is a mellowing fact for the value proposal, as if AI needs constant monitoring currently, and it can be said with most other AI applications too, the value significantly diminishes. But how much

it diminishes depends on the overall value of the AI application, it could still bring value that counteracts this. This is in turn a topic for further research on implementation of AI in digital marketing.

The capabilities and limitations of AI in digital marketing are the limit of which AI keeps being useful. At the current level of available AI models released to the public, the most beneficial AI augmentation, revealed by the discussion in multiple threads, is content generation. However, it does not pertain that AI will generate the content, but the idea generation, or spark of imagination needed to start the process. This ties in with time, efficiency, and productivity, as well as decision making in digital marketing. How effective does it have to be for humans to be obsolete in the labor market is something that needs to be discussed.

Worrying about mass layoffs or replacement by AI in some areas of business is prevalent in discussions. However, the main reason for the worry seems to be not knowing what AI is capable of which will be discussed later. There seems to be an equal amount of reassurance and anxiousness/pessimism for how long their work will keep them instead of exchanging them with AI. This falls nicely in line with the study exploring the possibility, or likelihood of AI replacing workers in endangered fields. Where the findings suggest that there is a possibility, but it is not at all likely for AI to operate without human interaction (Farrow, 2022).

Economic considerations were not satisfactorily collected, and should be a more important topic, however the economic aspects of AI may not be easily spotted by the public, and as such, businesses should be researched before and after implementation of AI to find valuable data on this. It would be interesting to see how much of a factor in profits AI will be able to affect, this may be a great future research topic to supplement the understanding of AI in business, and why it may be important.

Development factor of AI for digital marketing is not as much defined in this study, however the results show a genuine interest in further development of AI. Especially with the number of positive responses to the generative AI model ChatGPT. This in turn can propel further development for AI models alike or bringing new functions to the table, where there is room or possibility. Not many users forwarded their worries of in which rate AI was developed, more on the current publicly available AI tools they tried. Also there has been a development

in the AI market where Elon Musk has opened early access testing of his own X (Twitter) branded "Grok" as a nod to the movie "Hitchhiker's guide to the Galaxy" (*Announcing Grok*, 2023). Even after publicly participating in an online petition, protesting further development of AI for 6 months (Benigo et al., 2023).

The public understanding of AI is important to note as AI is rapidly becoming popular among normal people. AI is subject to skepticism as well, just as many other innovative developments through time. The public's exploratory nature and experiences may prove that AI is interesting enough to bring curiosity to high levels and being open to share their experiences and knowledge gained from it. However, the amount of data collected is small and no substantive population is explored when missing demography in the attempt to further explore and summarize marketing profession engagers' perception.

AI infancy is a theme explaining how fresh powerful AI is in today's business strata and the research and readiness for adopting such tools (Jöhnk et al., 2021). AI infancy is the term that would be visible if the discussions were containing some proof of no prior knowledge before discussing it online. However, the samples contained no real evidence of the public seeking to learn what the discussions were about. This does not rule out that there are no people not knowing what AI is or how its used in current marketing strategies. Particularly, it would be limited by the relatively small sample size this thesis analyzed. Additionally, there may be a need for further research upon the difference in generations' understanding of AI.

Chapter 6 Conclusion

AI has its place in Digital Marketing by way of content generation, automatic chatbots, automatic analyses of big data, or simply creating a platform for which to develop further upon. This thesis shows that the public discourse of AI does not lie with most marketing practitioners, or devotees. The thesis explores possible reasonings, statements for or against, or general unanimous statements for what level of value AI can bring to digital marketing if any at all. Netnography became the chosen method for analyzing data collected. With the use of archival data, no older than November 2022, the research manages to capture insight on public user experience of the publicly available AI tool ChatGPT and uses most of the reasoning for the exploration of the value of AI in digital marketing.

The research read and referenced served as an anchor to building theories and possible explanations of the stage AI is in, for implementation in digital marketing. Furthermore because of limited prior research some theorization had to be substantiated from the data collected. Such as the organized groups of elicited data presented in Figure 1 and 3 backed by similar research pertaining to some of the topics explored. The findings suggest that at the current stage, the most applicable field of marketing AI, as understood by the public, is content generation or the spark of imagination to handle such tasks. Management may want to tap into potential for developing strategies, and as such can employ AI to help as assistants, or sometimes AI was referred to as "intern" or "junior copywriter" or "assistant", where the notion suggests that it could absolutely be better than it is now, with the need for editing of errors and avoiding hallucination or outright wrong generated results.

The development of AI seems to take root in the comparison to competition in the AI market and the cost of it, and how well the model fits specific use case to benefit them. The economic aspect of the results shows a confusion around the monetization of publicly available AI tools. And that the price of AI would be manageable for most of the statements procured. Additionally, the practicality combined with industry perspective, the practical implementation makes most respondents aware of the change that is coming and that there is a risk for AI to replace humans. This is challenged by the more likely potential of the AI being more of a supporting role in the marketing industry rather than AI taking charge alone (Farrow, 2022). The competition with google seems to be important aspect of the future

development of AI. As Bing has implemented ChatGPT in it's search engine, google must in some way combat this advancement to keep ahead of the curve, however the sheer mass of loyalty towards Google they may not be as challenged as the public might think. The public view of Google being outclassed seems to worry no one, especially the case of translation which ChatGPT handles extraordinarily.

Still with the arrival of an AI tool that is top class, the need for marketing knowledge is still prevalent as the AI tool still cant be a marketing professional alone. As the statements suggest. However to study the capabilities of AI tools and extensively find a cut-off point where the AI is definitely in need of human intervention is an interesting topic one might want to research in the future.

6.1 Limitations of the study

Most of the discussions collected pertain to the use of GPT-3 or ChatGPT in marketing as this was the saturator for discussion in the time data collection was conducted, however the advances shown and discussed upon in AI technology by this and development thereof is a key for future research of publicly available AI. Future studies should focus on collecting data on more AI applications than ChatGPT for the purpose of studying AI value without it being skewed.

The thesis was written alone, so the data collected, coding of it and interpretation of it may be somewhat subjective. These steps are better performed in a non-subjective way by multiple researchers and could have strengthened the reliability of the thesis further.

No demographic population was identifiable, because of the anonymous nature of users on reddit. As the thesis is netnography alone, without extra supplementary physical studies. This can be identified as a weakness because of the random spread of sampling, and as such, the thesis cant discern specific areas AI is the most valuable for.

Another limitation is the time the thesis was constructed, as the researcher has had some problems regarding mental health and postponing work on the thesis for better days than the worst ones. This should not influence the quality of the thesis, but the time constraints were noticeable for the researcher.

6.2 Further research

Due to the growing market and the limited research on the topic of the value of AI in marketing. Another approach, where businesses who have just adopted AI in the regular business operation, can be studied for the effect before and after implementing AI or multiple businesses for that matter.

Further research might also consider more in-depth analysis of the individuals experience and attitude towards AI, such as a qualitative review or qualitative study containing interviews or similar. The need for understanding AI is ever growing as its clear more adopters are entering the fold, and as such a clear understanding of how AI functions for augmenting business or people's lives can be beneficial.

There is also a need for more economical analysis in the field of AI. How the investment in AI can pay off, in contrast to business that shy away from the opportunity. The thesis managed to gather some date on economical factors, but not much var procured. And as such there exists a research gap in this field.

References:

Announcing Grok. (2023). Retrieved November 14, 2023, from https://x.ai/

- Bahmanziari, T., Pearson, J. M., & Crosby, L. (2003). Is Trust Important in Technology Adoption? A Policy Capturing Approach. *Journal of Computer Information Systems*, 43(4), 46–54. https://doi.org/10.1080/08874417.2003.11647533
- Bahmanziari, T., Pearson, J. M., & Crosby, L. (2003). Is Trust Important in Technology Adoption? A Policy Capturing Approach. *Journal of Computer Information Systems*, 43(4), 46–54. https://doi.org/10.1080/08874417.2003.11647533
- Bedué, P., & Fritzsche, A. (2021). Can we trust AI? An empirical investigation of trust requirements and guide to successful AI adoption. *Journal of Enterprise Information Management*, 35(2), 530–549. https://doi.org/10.1108/JEIM-06-2020-0233
- Benigo, Y., Russel, S., Musk, E., & Wozniak, S. (2023, March 31). Pause Giant AI Experiments:

 An Open Letter. *Future of Life Institute*. https://futureoflife.org/open-letter/pause-giant-ai-experiments/

- BeautyInUgly. (2023, May 15). [D] What do you think of new EU AI Act? [Reddit Post].

 R/MachineLearning.

 www.reddit.com/r/MachineLearning/comments/13i8v1o/d what do you think of new eu ai_act/
- Brand, J., Israeli, A., & Ngwe, D. (2023). *Using GPT for Market Research* (SSRN Scholarly Paper No. 4395751). https://doi.org/10.2139/ssrn.4395751
- Bronnenberg, B. J., Kim, J. B., & Mela, C. F. (2016). Zooming In on Choice: How Do Consumers Search for Cameras Online? *Marketing Science*, *35*(5), 693–712. https://doi.org/10.1287/mksc.2016.0977
- Bulchand-Gidumal, J., William Secin, E., O'Connor, P., & Buhalis, D. (2023). Artificial intelligence's impact on hospitality and tourism marketing: Exploring key themes and addressing challenges. *Current Issues in Tourism*, *θ*(0), 1–18. https://doi.org/10.1080/13683500.2023.2229480
- Chaffey, D., Ellis-Chadwick, F., Mayer, R., & Johnston, K. (2009). *Internet Marketing: Strategy, Implementation and Practice*. Pearson Education.
- Chang, Y., Li, Y., Yan, J., & Kumar, V. (2019). Getting more likes: The impact of narrative person and brand image on customer–brand interactions. *Journal of the Academy of Marketing Science*, 47(6), 1027–1045. https://doi.org/10.1007/s11747-019-00632-2
- Chen, C. (2023). Influence of Employees' Intention to Adopt AI Applications and Big Data Analytical Capability on Operational Performance in the High-Tech Firms. *Journal of the Knowledge Economy*, 1–29. https://doi.org/10.1007/s13132-023-01293-x
- Christensen, L. B., Johnson, B., Turner, L. A., & Christensen, L. B. (2014). *Research methods, design, and analysis* (Twelfth Edition). Pearson.
- Culotta, A., & Cutler, J. (2016). Mining Brand Perceptions from Twitter Social Networks. *Marketing Science*, *35*(3), 343–362. https://doi.org/10.1287/mksc.2015.0968
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., [...] Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy.

- International Journal of Information Management, 57, 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002
- Dwivedi, Y. K., & Wang, Y. (2022). Guest editorial: Artificial intelligence for B2B marketing: Challenges and opportunities. *Industrial Marketing Management*, *105*, 109–113. https://doi.org/10.1016/j.indmarman.2022.06.001
- Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koohang, A., [...] Wright, R. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642. https://doi.org/10.1016/j.ijinfomgt.2023.102642
- Enholm, I. M., Papagiannidis, E., Mikalef, P., & Krogstie, J. (2022). Artificial Intelligence and Business Value: A Literature Review. *Information Systems Frontiers*, 24(5), 1709–1734. https://doi.org/10.1007/s10796-021-10186-w
- Farrow, E. (2022). Determining the human to AI workforce ratio Exploring future organisational scenarios and the implications for anticipatory workforce planning. *Technology in Society*, 68, 101879. https://doi.org/10.1016/j.techsoc.2022.101879
- Floridi, L., & Chiriatti, M. (2020). GPT-3: Its Nature, Scope, Limits, and Consequences. *Minds and Machines*, *30*(4), 681–694. https://doi.org/10.1007/s11023-020-09548-1
- Forbes Breaking News (Director). (2023, May 17). *John Kennedy Asks AI Leaders Extremely Blunt Questions About Artificial Intelligence*. https://www.youtube.com/watch?v=_mDIjqdCx-E
- Gates, B. (2023, March 21). *The Age of AI has begun*. Gatesnotes.Com. https://www.gatesnotes.com/The-Age-of-AI-Has-Begun
- Gkikas, D. C., & Theodoridis, P. K. (2019). Artificial Intelligence (AI) Impact on Digital Marketing Research. In A. Kavoura, E. Kefallonitis, & A. Giovanis (Eds.), *Strategic Innovative Marketing and Tourism* (pp. 1251–1259). Springer International Publishing. https://doi.org/10.1007/978-3-030-12453-3_143

- Grewal, L., & Stephen, A. T. (2019). In Mobile We Trust: The Effects of Mobile Versus Nonmobile Reviews on Consumer Purchase Intentions. *Journal of Marketing Research*, 56(5), 791–808. https://doi.org/10.1177/0022243719834514
- Hassan, A. (2021). The Usage of Artificial Intelligence in Digital Marketing: A Review. In A.
 Hamdan, A. E. Hassanien, R. Khamis, B. Alareeni, A. Razzaque, & B. Awwad (Eds.),
 Applications of Artificial Intelligence in Business, Education and Healthcare (pp. 357–383).
 Springer International Publishing. https://doi.org/10.1007/978-3-030-72080-3_20
- Hatem, R., Simmons, B., & Thornton, J. E. (2023). A Call to Address AI "Hallucinations" and How Healthcare Professionals Can Mitigate Their Risks. *Curēus (Palo Alto, CA)*, *15*(9), e44720–e44720. https://doi.org/10.7759/cureus.44720
- Hick, A., Ziefle, M., Ziefle, A. H. and M., Hick, A., & Ziefle, M. (2022). A Qualitative Approach to the Public Perception of AI. *International Journal on Cybernetics & Informatics (IJCI)*, *11*(11), Article 4. https://doi.org/10.5121/ijci.2022.110206
- Hoffman, D. L., & Novak, T. P. (1996). Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations. *Journal of Marketing*, 60(3), 50–68. https://doi.org/10.2307/1251841
- Jöhnk, J., Weißert, M., & Wyrtki, K. (2021). Ready or Not, AI Comes—An Interview Study of Organizational AI Readiness Factors. *Business & Information Systems Engineering*, 63(1), 5–20. https://doi.org/10.1007/s12599-020-00676-7
- Kalla, D., & Smith, N. (2023). *Study and Analysis of Chat GPT and its Impact on Different Fields of Study* (SSRN Scholarly Paper 4402499). https://papers.ssrn.com/abstract=4402499
- Kelley, P. G., Yang, Y., Heldreth, C., Moessner, C., Sedley, A., Kramm, A., Newman, D. T., & Woodruff, A. (2021). Exciting, Useful, Worrying, Futuristic: Public Perception of Artificial Intelligence in 8 Countries. *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society*, 627–637. https://doi.org/10.1145/3461702.3462605

- Kiang, M., & Chi, R. (2001). A Framework for Analyzing the Potential Benefits of Internet Marketing. *J. Electron. Commerce Res.*, 2, 157–163.
- Klopper, H. (2008). The qualitative research proposal. *Curationis*, *31*(4), 62–72. https://doi.org/10.4102/curationis.v31i4.1062
- Kocher, M. G., & Sutter, M. (2006). Time is money—Time pressure, incentives, and the quality of decision-making. *Journal of Economic Behavior & Organization*, 61(3), 375–392. https://doi.org/10.1016/j.jebo.2004.11.013
- Kozinets, R. V. (1999). E-tribalized marketing?: The strategic implications of virtual communities of consumption. *European Management Journal*, *17*(3), 252–264. https://doi.org/10.1016/S0263-2373(99)00004-3
- Kozinets, R. V. (2002). The Field behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research*, *39*(1), 61–72. https://doi.org/10.1509/jmkr.39.1.61.18935
- Kozinets, R. V., De Valck, K., Wojnicki, A. C., & Wilner, S. J. S. (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. *Journal of Marketing*, 74(2), 71–89. https://doi.org/10.1509/jm.74.2.71
- Kozinets, R. V. (2015). Netnography: Redefined. SAGE.K
- Kozinets, R. V., & Gretzel, U. (2021). Commentary: Artificial Intelligence: The Marketer's Dilemma. *Journal of Marketing*, 85(1), 156–159. https://doi.org/10.1177/0022242920972933
- Kumar, D. (2023). *Ethical and Legal Challenges of AI in Marketing: An Exploration of Solutions* (SSRN Scholarly Paper No. 4396132). https://doi.org/10.2139/ssrn.4396132
- Kumar, V., Rajan, B., Venkatesan, R., & Lecinski, J. (2019). Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing. *California Management Review*, 61(4), 135–155. https://doi.org/10.1177/000812561985931
- Ljepava, N. (2022). AI-Enabled Marketing Solutions in Marketing Decision Making: AI Application in Different Stages of Marketing Process. *TEM Journal*, 1308–1315. https://doi.org/10.18421/TEM113-40

- Mayer-Schönberger, V., & Cukier, K. (2013). *Big Data: A Revolution that Will Transform how We Live, Work, and Think.* Houghton Mifflin Harcourt.
- Noy, S., & Zhang, W. (2023). Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence (SSRN Scholarly Paper 4375283). https://doi.org/10.2139/ssrn.4375283
- OpenAI. (2022). Introducing ChatGPT. https://openai.com/blog/chatgpt
- OpenAI. (2023). GPT-4. https://openai.com/product/gpt-4
- Paris, M. (2023, February 2). *ChatGPT Hits 100 Million Users, Google Invests In AI Bot And CatGPT Goes Viral*. Forbes. https://www.forbes.com/sites/martineparis/2023/02/03/chatgpt-hits-100-million-microsoft-unleashes-ai-bots-and-catgpt-goes-viral/
- Payne, J. W., Bettman, J. R., & Luce, M. F. (1996). When Time Is Money: Decision Behavior under Opportunity-Cost Time Pressure. *Organizational Behavior and Human Decision Processes*, 66(2), 131–152. https://doi.org/10.1006/obhd.1996.0044
- Rathore, D. B. (2023). Future of AI & Generation Alpha: ChatGPT beyond Boundaries. *Eduzone: International Peer Reviewed/Refereed Multidisciplin*ary Journal, 12(1), 63–68. Retrieved from https://www.eduzonejournal.com/index.php/eiprmj/article/view/254
- Schwab, K. (2016, January 14). *The Fourth Industrial Revolution: What it means and how to respond*. World Economic Forum. https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/
- Singh, H. (2022). *Artificial Intelligence in strategic marketing: Value generation and mechanisms of action* [Master thesis, NTNU]. https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/3018579
- Sridhar, S., Germann, F., Kang, C., & Grewal, R. (2016). Relating Online, Regional, and National Advertising to Firm Value. *Journal of Marketing*, 80(4), 39–55. https://doi.org/10.1509/jm.14.0231
- Tsigaris, P., & Teixeira da Silva, J. A. (2023). Can ChatGPT be trusted to provide reliable estimates? *Accountability in Research*, 0(0), 1–3. https://doi.org/10.1080/08989621.2023.2179919

- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From Multi-Channel Retailing to Omni-Channel Retailing: Introduction to the Special Issue on Multi-Channel Retailing. *Journal of Retailing*, 91(2), 174–181. https://doi.org/10.1016/j.jretai.2015.02.005
- Veale, M., & Borgesius, F. Z. (2021). Demystifying the Draft EU Artificial Intelligence Act—Analysing the good, the bad, and the unclear elements of the proposed approach. *Computer Law Review International*, 22(4), 97–112. https://doi.org/10.9785/cri-2021-220402
- Verma, S., Sharma, R., Deb, S., & Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*, *I*(1), 100002. https://doi.org/10.1016/j.jjimei.2020.100002
- Wang, D., Weisz, J. D., Muller, M., Ram, P., Geyer, W., Dugan, C., Tausczik, Y., Samulowitz, H.,
 & Gray, A. (2019). Human-AI Collaboration in Data Science: Exploring Data Scientists'
 Perceptions of Automated AI. *Proceedings of the ACM on Human-Computer Interaction*,
 3(CSCW), 1–24. https://doi.org/10.1145/3359313
- Wedel, M., & Kannan, P. K. (2016). Marketing Analytics for Data-Rich Environments. *Journal of Marketing*, 80(6), 97–121. https://doi.org/10.1509/jm.15.0413
- Wirtz, B. W., Weyerer, J. C., & Geyer, C. (2019). Artificial Intelligence and the Public Sector—Applications and Challenges. *International Journal of Public Administration*, *42*(7), 596–615. https://doi.org/10.1080/01900692.2018.1498103