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Toward the Future of Marketing: To what extent Artificial Intelligence and Marketing Analytics Can Be Leveraged to Enhance Customer Experience and Drive Business Growth in the Future?

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Abstract

Purpose. Drawing upon past findings from various camps of literature and self-conducted interviews, the following paper intends to assess the ability of AI and marketing analytics to enhance customer experience and drive business growth in the future.

Methodology. In doing so, six consumer and marketer semi-structured interviews were conducted. Building on the resulting transcripts, text analyses, namely bigrams frequency and word clouds, allowed the extraction of the most frequently used terms.

Findings. Findings show that data, AI, and blockchain solutions are reportedly expected to reshape the marketing landscape in the coming years, allowing a larger volume of data to be analyzed more efficiently and consumer interactions to become hyper-personalized while addressing growing data privacy concerns and building trust.

Practical Implications. In anticipating these changes, businesses ought to invest in building a robust data strategy to better sense their customers' needs, personalize their offers, and enhance the overall experience while better allocating their marketing resources.

Introduction

Ever since companies have been selling goods and services to a wide range of potential customers, marketing has played a pivotal role in driving business growth (Kotler, 1972). Due to the emergence of digital ecosystems, the use of artificial intelligence (AI) and deep learning has become preeminent, improving the effectiveness of marketing tactics (Rust, 2019). The latter has contributed to building consumers' expectations for innovative and creative interaction with brands (Huang, Rust and Maksimovic, 2019). As a result, marketing has become a buoyant and ever-changing field with disruptive technologies, trends, and techniques emerging regularly (Rust, 2019), which contribute to significantly improving customers' experience (Hall, 2019). Technologies, including virtual reality, AI, and robots, constantly provide marketers with new tools, which assist them in developing interactive and personalized campaigns for clients (Akter et al., 2022) and opening up opportunities for brand involvement (Jain and Aggarwal, 2020). Likewise, AI allows businesses to automate

repetitive tasks, enabling a better allocation of resources to more valuable marketing segments (Davenport and Ronanki, 2018).

Consequently, it is vital to anticipate future changes and accordingly adapt upcoming marketing strategies for firms to remain competitive. The latter includes engaging with their target audiences, enhancing brand awareness, and spurring growth by analyzing consumer behavior and data-driven insights (Davenport et al., 2019). The future of marketing appears to be an exciting and dynamic environment that will undeniably present new opportunities and challenges for organizations moving forward. Drawing upon past findings from various camps of literature and self-conducted interviews, the following paper is aimed at examining the ability of AI and marketing analytics to enhance customer experience and drive business growth in the medium-to-long term, from both a customer and marketer perspective.

Part 1: Literature Review

1. Concept Definition

Marketing. Kotler (1972) refers to marketing as the process of creating, offering, and exchanging value. That involves analyzing customers' wants and needs and developing, pricing, advertising, and distributing products and services that meet their expectations [1] (Kotler, 1972). Marketing is constantly being disrupted by the emergence of new technologies, including Artificial Intelligence (AI) (Davenport, 2018) and Robotics (Mende et al., 2019).

Artificial Intelligence. Shankar (2018) defines AI as "programs, algorithms, systems, and machines that demonstrate intelligence". Accordingly, it has the ability to perform human tasks, such as learning, problem-solving, and decision-making (Grewal et al., 2019), which relies essentially on machine learning, natural language processing (NLP), and neural networks (Davenport, 2018). AI allows data interpretation (Kaplan and Haenlein, 2019), insight generation, and process automation (Davenport and Ronanki, 2018) and can handle a significant amount of data (Jain and Aggarwal, 2020).

Marketing Analytics and AI. AI and analytics enable businesses to sense marketing phenomena (Rust, 2019) and boost marketing campaigns' returns on investment (ROI) (Hall, 2019) using customer data. In the digital marketing era, analytics and AI Marketing leverage technology to improve the customer journey (Hall, 2019) and generate insights from vast amounts of big data (Davenport et al., 2019). They aim to optimize marketing mix, segmentation, and targeting while allowing real-time decision-making for personalization and customer relationship management (CRM) (Akter et al., 2022).

[1] Concept of 4Ps in Marketing developed by Mccarthy (1978) including Product, Price, Promotion, and Place.

2. AI Reshaping the Future of Marketing

Firms' success relies on their ability to identify customers' needs and to create unique value propositions (Sozuer et al., 2020). Kotler (1967) has identified three marketing domains, including insight, strategy, and execution, that will be required to leverage data, analytics, and AI in the future.

2.1. Marketing Insight

Current use. Firms must analyze the environment in which they evolve to make the right decisions, which Kotler (1967) refers to as marketing insight. The latter intends to collect, warehouse, and analyze various data and generate insights using descriptive, predictive, and prescriptive tools (Wedel & Kannan, 2016) in order to support marketing decision-making (Huang and Rust, 2018; Sozuer et al., 2020). Nowadays, AI is mainly used for repetitive marketing tasks, such as data collection - referred to as "mechanical AI" (Davis, Grewal and Hamilton, 2021) - and for identifying hidden meaningful patterns within vast amounts of data, including customer and marketing data - referred to as "thinking AI" (Huang and Rust, 2020; Jain and Aggarwal, 2020). The emergence of technologies, such as the internet, smartphones, and social media, and the interconnection between them, called the internet of things (IoT), have increased the amount of structured and unstructured big data collected (Rust, 2019; Grewal et al., 2019). Leveraging cloud computing (Rosario and Dias, 2022), the AI is now able to collect, store, and analyze the said data (Huang and Rust, 2018; Rust, 2019) through machine learning and text, voice, face, and image analysis (Davis, Grewal and Hamilton, 2021). This new digital ecosystem and data sources enable brands to increase their understanding and predict behaviors of global customers' needs through continuous online tracking (Rust, 2019) or social media analytics (Davis, Grewal and Hamilton, 2021).

Future trends. With big data just arising (Hall, 2019), researchers expect data to become increasingly bigger and better, with predictive analytics fueled by more tweets, loyalty card information, and speech recognition (Grewal et al., 2019). Accordingly, AI should be able to handle a much more preponderant amount of data faster and more accurately (Huang and Rust, 2018). Consequently, analytics capabilities should be incredibly upgraded, leading to more accurate predictions of future behaviors and needs (Hall, 2019; Davenport et al., 2019), powerful NLP (Huang and Rust, 2018), and speech emotion recognition and empathy (Schuller, 2018).

2.2. Marketing Strategy

Current use. The rise of AI has helped companies to develop strategic objectives to enhance their competitive advantages (Huang and Rust, 2018). Companies develop beneficial capabilities through personalization, forecasting, and automation (Jain and Aggarwal, 2020). Companies understand their customers and provide personalized offerings through smaller, critical segmentation (Aguirre, 2015; Davis, Grewal and Hamilton, 2021). The use of adaptive personalization systems and AI predictive

analytics enable tracking and predicting customers' purchasing trends (Rust, 2019). Automation is a type of AI that requires consistency and logic and performs well-defined tasks to automate business processes (Davenport et al., 2019). Automation is widely used in targeted advertisement, website personalization, and churn predictions (Jain and Aggarwal, 2020). Today, the adoption of mobile marketing and digital marketing has increased, including Social Media Marketing (SMM), Search Engine Optimisation (SEO), and Search Engine Marketing (SEM) (Rosário and Cruz, 2019; Tong, Luo and Xu, 2019).

Future trends. When a deep understanding of consumer emotions is crucial for decision-making (Verma et al., 2021), the concept of "Feeling Economy" suggests that companies combine AI and human emotions to create deeper connections with customers (Huang, Rust and Maksimovic, 2019). For instance, optimization frameworks aimed at analyzing facial traits in videos could potentially expand to marketing (Zhang et al., 2017). Likewise, improvements in emotion recognition will enable marketing AI to tackle complex emotional tasks by responding appropriately to facial expressions and vocal intonation (Schuller, 2018). Amongst other potential future trends is "Industry 4.0", which involves the integration of machines, humans, and objects through smart manufacturing technologies, cloud computing, big data, augmented reality, and the IoT (Bettiol, Capestro and Di Maria, 2017). The latter is likely to form a contemporary business culture that will create a more networked value chain and increase production efficiency, customization, and customer focus (Sterev, 2017). That would change the role of customers in the production process (Ungerman, Dědková and Gurinova, 2018), allowing them to share feedback and opinions on products and/or brands rather than passively receiving marketing information (Ungerman and Dědková, 2019).

2.3. Marketing Execution

Current use. Marketing execution is the application of marketing strategies to the marketing mix, including the 4Ps of marketing (Kotler, 1967). (1) Products tend to become services as interactions between customers and IoT strongly contribute to the user experience (Hoffman and Novak, 2017). AI-based marketing analytics tools gauge the suitability of product design to customer needs and resultant customer satisfaction (Verma et al., 2021). Hence, humanoid robots are used to standardize services (Mende et al., 2019). Similarly, AI-powered chatbots handle automated routine and repetitive tasks, such as addressing commonly asked questions and supporting requests to reduce wait time (Huang and Rust, 2018; Shankar, 2018). (2) Pricing includes intensive and complex calculations that encounter multiple aspects in order to maximize profit. With this in mind, AI analyzes fluctuating demand and competitors' pricing to find the optimal price (Shankar, 2018). (3) Place management leverages AI to address repetitive tasks, such as robots for packaging and drones for delivery in logistics. Further uses of IoT involve inventory management with order tracking and refilling (Verma et al., 2021; Huang and Rust, 2020). (4) As for promotion, it is shifting from physical to phygital

(Verma et al., 2021), involving indicators (ROI, KPI) that measure and implement strategies such as SEO, SEM, and SMM.

Future trends. As expected by Hall (2019), the use of AI might increase, reducing human interventions. Feeling AI will be able to interact with customers (Davis, Grewal and Hamilton, 2021) and address complex queries and emotional reactions (Hall, 2019). Added in-store technologies will widely be used to help clients try their products, including augmented reality and smart mirror equipped-dressing rooms (Grewal et al., 2019). Customer relationship management (CRM) is expected to increasingly use AI in communicating with customers (Rust, 2019). Consequently, AI will disrupt human interactions by directly connecting with customers. Furthermore, AI will redefine the marketing mix (Sozuer et al., 2020) by disrupting sales from prospecting to following up (Singh et al., 2019; Syam and Sharma, 2018). Cutting-edge technologies, such as AI and data analytics, will hugely define the marketing mix according to customer behavior toward AI and robots (Davenport et al., 2019).

3. Future Challenges

Researchers expect the rise of AI to benefit marketers. However, it implies numerous ethical concerns that will require hyper-care.

Personalization-privacy paradox. Personalized content relies on customers' browsing history, which raises ethical concerns about data privacy and increases the risk of unauthorized access (Sozuer et al., 2020; Huang and Rust, 2018). Although personalization can enhance the effectiveness of marketing efforts, it can also erode customer trust (Tong, Luo, and Xu, 2019) and jeopardize privacy (Rust, 2019). To build trust with customers and comply with regulations such as GDPR, marketers ought to be transparent about data collection and obtain explicit consent from consumers (Tong, Luo, and Xu, 2019), as privacy is considered a human right (Grewal et al., 2019).

Transparency in AI Marketing. Marketers will have to adopt a "trust-building strategy" to mitigate negative perceptions and increase the effectiveness of personalized ads (Aguirre et al., 2015). Explainable AI could be leveraged to increase transparency and visibility, thereby enhancing customer trust (Grewal et al., 2019). Best practices and ethical guidelines developed with input from diverse stakeholders, including customers and experts, can also address concerns associated with data privacy (Ma and Sun, 2020).

Ethical and societal implications of AI Marketing. In addition, increased automation of routine human experiences by AI systems will have detrimental economic and social consequences, such as job losses, displacements, cultural insensitivities, language barriers, and the need for localization in global marketplaces (Huang and Rust, 2018; Mende et al., 2019; Shankar et al., 2021).

Part 2: Research Method

The present research is aimed to gather valuable insights into challenges faced by the marketing industry and explore the potential of AI and Marketing Analytics in addressing these challenges.

1. Methodology

Semi-structured interviews were conducted with a range of stakeholders, including marketing managers, juniors, and consumers listed in Appendix 1, to obtain a comprehensive perspective on the industry. The interviews were designed to elicit a mix of open-ended questions (cf. Appendix 2), with the responses being recorded, transcribed (cf. Appendix 3), and analyzed to identify common themes and issues.

Topic mining analysis was utilized to extract the key themes and opportunities related to digital marketing technologies from the interview transcripts. These analyses allowed the identification of the most ubiquitous topics and words discussed during the interviews, facilitating a better understanding of the challenges and opportunities presented by technologies in marketing.

Two methods were employed to identify the commonly used topics and words: word clouds (cf. Appendix 5.2) and bigrams-plots (cf. Appendix 5.1) (R code in Appendix 4). A word cloud is a visual representation of the most frequently used words in a text corpus and was used to identify crucial topics that emerged from the interviews. Then, a bar plot was utilized to represent the most frequent combinations of words in the corpus. These methods enabled the identification of key themes and issues related to the future of marketing and provided a deeper understanding of the potential of technologies in addressing industry challenges.

2. Findings

The findings drawn from the present study provided significant insights into the pivotal role technologies can play in shaping the future of marketing. The growing advancements in technology can automate and optimize marketing strategies for greater efficiency and efficacy. The interviews conducted throughout the research contributed to building the picture of two perspectives in anticipating the future of marketing, namely marketers' and customers'.

2.1. From Marketers' Perspective

According to the interviewed marketing managers, technologies, including AI, machine learning, and NLP, are expected to revolutionize the way marketers collect, analyze, and make use of data to improve their advertising campaigns.

Disruptive Technologies. In line with the topic-related research, the interviewees acknowledged that the so-called technologies greatly help analyze large volumes of data to identify patterns and trends, enabling marketers to enhance their understanding of consumer behavior and preferences. Additionally, chatbots and AI-powered messaging platforms can provide customers with personalized

assistance and support, which contributes to building stronger customer relationships. One of the most mentioned AI technologies throughout the interviews was ChatGPT, as shown in Appendix 5.1, which could be leveraged in a 5–10-year horizon to interact with customers in a personalized manner.

Blockchain. Likewise, they expect the emergence of blockchain technology to disrupt the marketing industry. With its decentralized nature and high-level security, blockchain can help ensure that customer data is secure and protected, which, according to them, would help cope with growing privacy concerns. The said technology could also help address trust and transparency issues in marketing as it allows marketers to create a tamper-proof record of customer transactions and interactions, as expressed by four of the six interviewees (cf. transcripts in Appendix 3).

Personalization. In keeping with marketing research, several respondents emphasized the importance of personalization in the future of marketing, which is portrayed in Appendix 5.6 with a relatively high frequency of words such as "track", "customization", and "data-driven". Advertising customization strategies that align with individual customer needs and behaviors are expected to be paramount. The latter can be achieved through data analytics, social media, and technologies such as voice recognition technologies and smart speakers. According to marketers, these tools are likely to alter the way they interact with consumers, requiring them to adapt their content and advertising strategies to remain relevant.

Data culture. Interviewees consider that the marketing strategies' success will depend on their ability to leverage technological advancements. According to them, marketers ought to be adept in data management and analysis to thrive in the future. In addition, they will need a strong understanding of customer needs and behavior in order to effectively analyze AI-collected data. With "data" being one of the most frequently appearing terms (cf. Appendix 5.6), it is evident that marketers must possess the ability to gather and analyze vast amounts of data to gain valuable insights into customer behavior, preferences, and trends. As mentioned by the Google salesperson (cf. Appendix 3), they must track customer interactions across multiple platforms, including social media, mobile, and email, and harness this data to develop targeted marketing campaigns that resonate with their intended audience.

Cost reduction and competitive advantage. Another vital observation is that marketers must be resourceful and creative in light of resource constraints such as budgets, staffing, and other resource limitations. They must devise innovative approaches leveraging AI to engage with their target audience and achieve their marketing objectives, whether it entails social media influencers or collaborating with other businesses to broaden their reach.

2.2. From Customers' Perspective

One semi-structured interview was conducted with a randomly selected customer (cf. Appendix 3) and examined in light of the most preeminent conclusions drawn from the aforementioned marketers' interviews. Although a single interview presents limitations in capturing an overall picture of the

future of marketing from a customer's perspective, it provided insightful knowledge with regard to the use of new technologies in marketing and the effects that will have down the road.

The consumer underlined the extent to which new AI tools, such as chatbots, have impacted online interactions with various businesses. As a result of these technologies, the respondent acknowledged that marketing campaigns are now more specifically targeted to customers' needs. In addition, the customer expressed concerns about evolving technologies and how they should be used by businesses and marketers to create better marketing strategies rather than becoming manipulative instruments designed to influence people's minds and behavior. Lastly, the respondent placed a lot of emphasis on how it believes emerging technologies, particularly AI, can automate the activities of marketers so that employees can be assigned more valuable tasks and, by doing so, how they will improve their marketing techniques.

Part 3: Recommendations

The present research was conducted in order to build a medium to long-term vision of the future of marketing in the context of AI. Along with past literature, manager and customer interviews helped formulate the following recommendations for businesses to anticipate AI-based disruption of marketing practices and gain a considerable competitive advantage in the coming years.

Embrace personalization.

Consumers expect companies to tailor their advertising in order to meet their specific needs and preferences. As such, marketers will be required to invest in AI and marketing analytics to deliver highly targeted campaigns relevant to customer profiles across all channels and maintain their competitive advantage. However, it was shown that, if not handled correctly, personalization can reveal itself to be a double-edged sword for marketers. Even though it can enhance the effectiveness of marketing efforts, the latter comes at the cost of customer trust (Tong, Luo, and Xu, 2019) and privacy (Rust, 2019) if perceived as intrusive or manipulative. Therefore, it will be necessary for marketers to obtain explicit consent from consumers about their data collection and use practices, thus ensuring compliance with relevant data protection laws such as GDPR. By using consumer data responsibly and giving them access to and control over their personal information, marketers will be able to adopt a "trust-building strategy" (Aguirre et al., 2015) and create personalized customer experiences that are unique to their profiles, thus enhancing the user experience. That could eventually lead to increase customer loyalty and advocacy, and ultimately drive business growth.

Invest in AI and automation.

As suggested by the Global Marketing Director at PepsiCo-Gatorade (cf. Appendix 3), "we are now at the threshold of having billions and billions of consumer data". That is undeniably true as the volume and complexity of data continue to increase. Given the current and future circumstances,

marketers will increasingly rely on robotics and explainable AI systems to manage campaigns and analyze data. Investing in these technologies will help streamline redundant processes, improve productivity, and deliver better results, thus helping brands differentiate themselves from competitors. Conversely, the increased automation of routine human experiences by AI systems will have detrimental economic and societal consequences (Mende et al., 2019). While it is true that AI and automation can take over some routine human tasks, it will be crucial to establish that these technologies are to augment and enhance the capabilities of human marketers. By automating non-value-added tasks such as data entry, reporting, and campaign management, marketers will overcome resource constraints to focus on more strategic and creative activities that require human expertise. As a result, the conjunctive use of disruptive technologies requiring human expertise, such as augmented reality, voice recognition, and blockchain, will drive business growth.

Measure and optimize.

As "data" appeared to be the most frequently occurring term in the word clouds (cf. Appendix 5.6), together with the need to track customer interactions across multiple platforms, it will be prominent for marketers to continually measure and optimize their campaigns to ensure marketing efforts are delivering results. In this case, marketers should, as of now, invest in tools that allow them to track key performance indicators (KPIs) such as conversion rates, click-through rates (CTRs), cost per acquisition (CPAs), and return on investment (ROI), to name a few; using the insights gained to improve their campaigns over time.

Prioritizing customer experience.

Focusing on the entire value chain of customer experiences is expected to be the key to companies' success in the future. Therefore, they will have to prioritize delivering exceptional customer experiences at every touchpoint. For this reason, substantial investments in efficient customer support that creates user-friendly digital experiences and leverages customer feedback will contribute to improving overall customer experiences and engagement. Repeatedly mentioned by the interviewees, ChatGPT will appear to be a powerful tool that could be leveraged to revolutionize customer support interactions. Moreover, that could help consumers troubleshoot issues related to security and privacy. Accordingly, that would foster trust between users and brands and help identify potential security and privacy risks early, allowing companies to take proactive measures to address them before they become more serious (Hoffman and Novak, 2017). All in all, by focusing on delivering value to customers and building trust, AI and marketing analytics will improve campaigns while respecting customer privacy.

Conclusion

Marketing was previously defined as the process of creating value for customers by analyzing their wants and needs and addressing them. AI and marketing analytics are currently disrupting the traditional marketing industry. The above paper intended to draw upon past findings of various camps of literature and self-conducted interviews to create a better understanding of what the future of marketing may look like in the context of AI. It asked questions about the ability of AI and marketing analytics to enhance customer experience and drive business growth in the medium-to-long term.

AI has been shown to enable businesses to sense marketing phenomena and optimize their marketing mix, segmentation, and targeting. Under these circumstances, the adoption of data-driven personalization technologies is pivotal to the future of marketing, as larger and more complex consumer datasets will emerge in the future. As a result, the forthcoming marketing is expected to be shaped by AI and automation that focuses on continuous measurement and optimization with a customer-centric approach. As such, marketers are well-advised to invest in these technologies and tools to create highly targeted and relevant content that will significantly improve customer satisfaction and drive business growth while respecting customer privacy and building trust.

To conclude, the findings drawn from the analysis of the interviews with marketing professionals and customers alike provided valuable insights into the current challenges faced by the marketing industry and the potential of AI and Marketing Analytics in addressing them. Finally, embracing the recommendations can help them stay ahead of the competition in an ever-evolving marketing landscape.

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Appendix

Appendix 1 – List of the interviewees

Status	Position	Age	Gender
Marketer	UX Designer	26	Female
Marketer	Business Owner	27	Female
Marketer	Salesperson	24	Male
Marketer	Marketing Global Director	40	Male
Consumer	/	23	Female
Marketer	Marketing Junior	23	Female

Appendix 2 – Semi-structured interview questions

For industry representatives:

- How do you see technology changing the marketing landscape in the next 5-10 years?
- What impact do you think emerging technologies such as artificial intelligence, machine learning, or blockchain already have/will have on marketing?
- With the increasing focus on personalization and customization, how do you see data-driven marketing evolving in the future?
- What do you see as the biggest challenges facing marketers in the future, and how can they be addressed?

For customers:

- How do you feel about companies using AI to personalize their marketing messages and offers to you? Do you find it helpful, invasive, or something else?
- Have you noticed any changes in the quality of relevance of marketing messages since companies started using AI-powered methods? If so, can you provide an example?
- What ethical considerations do you think companies should keep in mind when using new technologies, and how can they ensure that they are not violating consumers' privacy or manipulating their behavior?

Appendix 3 – Interviews transcripts

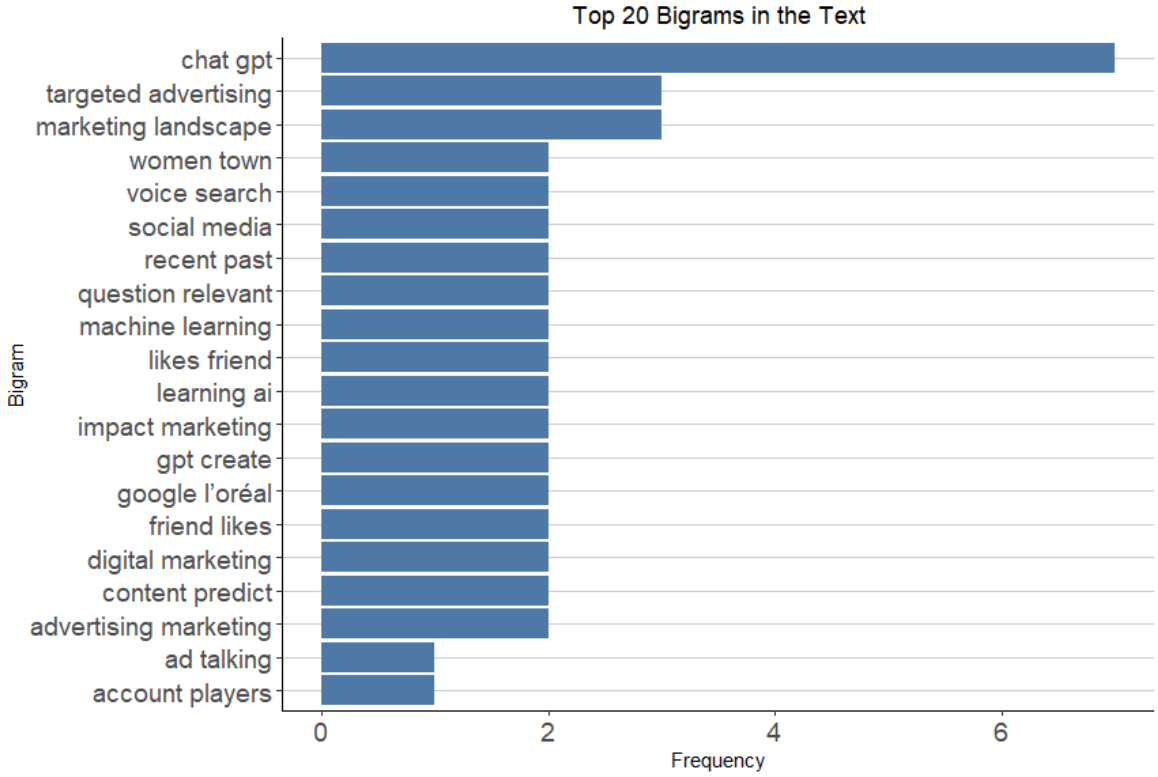
https://docs.google.com/document/d/1JPPQTS5uXeZR4D_RZfjxnzpnyUqRQaUbmpkrZc_UFZk/edit?usp=sharing

Appendix 4 – Visualization R code

https://github.com/unfrtntely/marketing/blob/133c3d90f390fdbd6a33c6da9cfad22bda6c342b/marketingcode.R

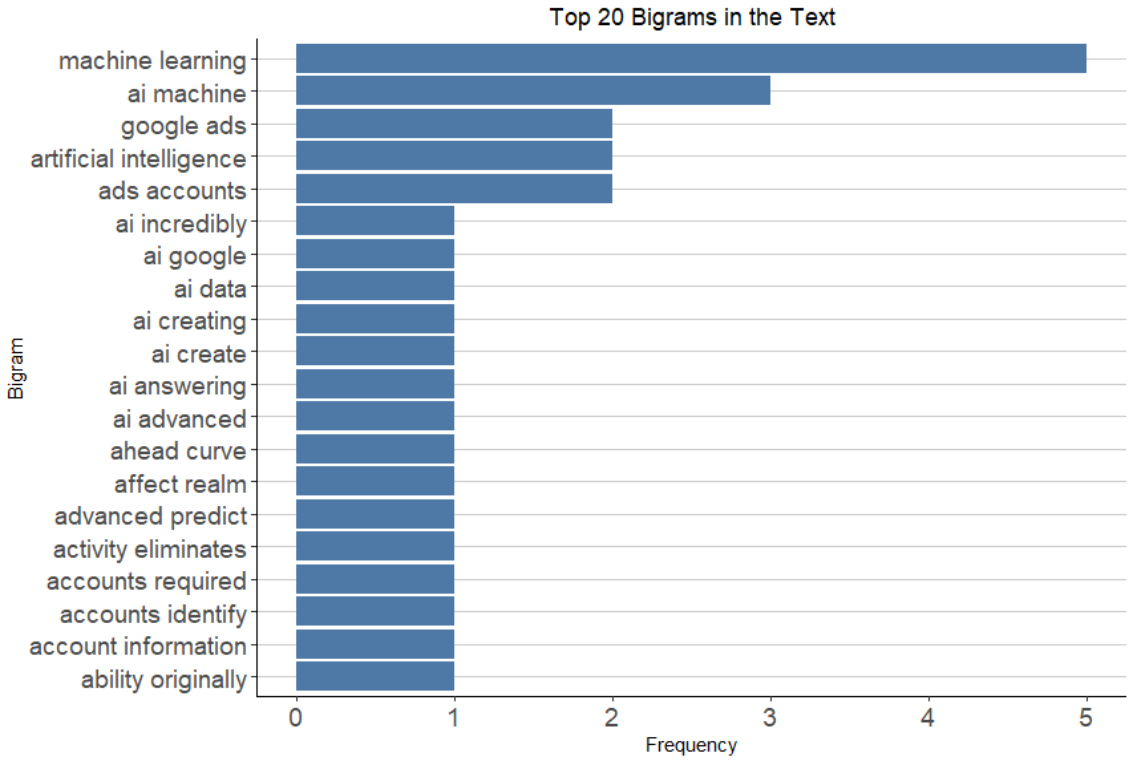
Appendix 5 – Marketers interview bigrams analyses and word clouds

Appendix 5.1 – Top 20 bigrams in answer 1 transcript and their associated frequency



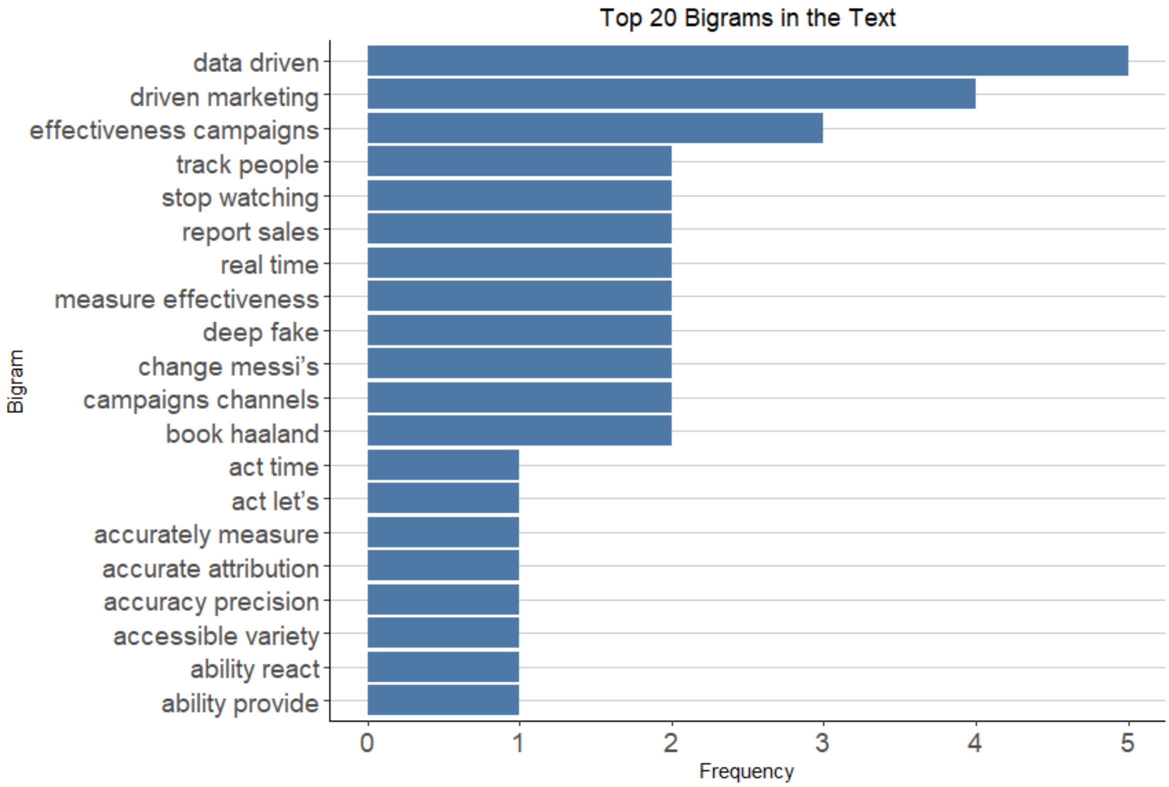
Appendix 5.2 – Answer 1 word cloud of the most frequently used terms

Appendix 5.3 – Top 20 bigrams in answer 2 transcript and their associated frequency



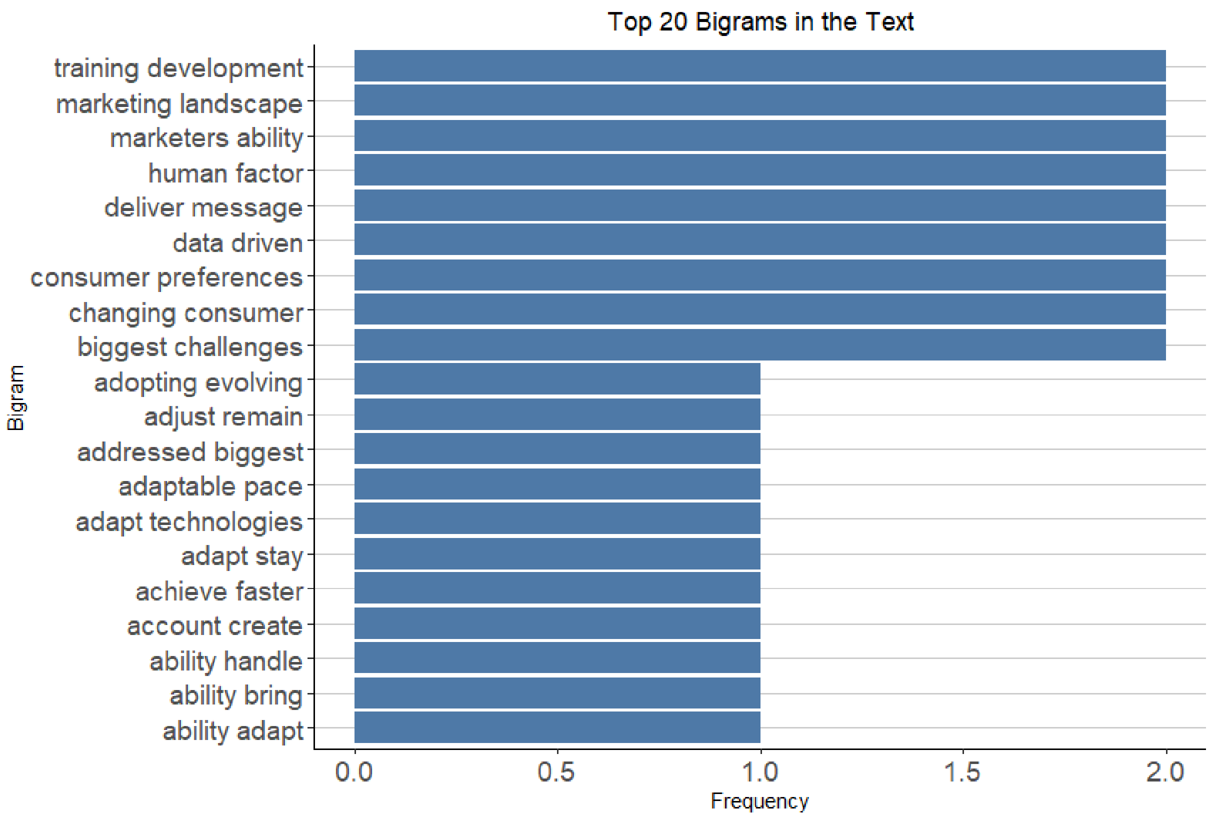
Appendix 5.4 – Answer 2 word cloud of the most frequently used terms

Appendix 5.5 – Top 20 bigrams in answer 3 transcript and their associated frequency



Appendix 5.6 – Answer 3 word cloud of the most frequently used terms

Appendix 5.7 – Top 20 bigrams in answer 4 transcript and their associated frequency



Appendix 5.8 – Answer 4 word cloud of the most frequently used terms