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Artificial Intelligence in Marketing: An Introduction

Brooke Porter

A DEPARTMENT HONORS THESIS SUBMITTED TO THE
DEPARTMENT OF Communication AT TRINITY UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR GRADUATION WITH
DEPARTMENTAL HONORS

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Dr. Zhaoxi Liu

THESIS ADVISOR

Althea Delwiche

DEPARTMENT CHAIR

Jennifer Henderson, AVPAA

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Brooke Porter
April 12, 2024

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Introduction:

This white paper will explore how artificial intelligence (AI) is becoming integrated into the marketing field. More specifically, it will look at four major areas of marketing that are changing due to AI: hyper-segmentation, customer experiences & satisfaction, branding & advertising, and content generation. In each of these sections, an overview of what each category is will be discussed as well as case studies from several companies on how AI technology is used. While some of the case studies were found through the research of published material, I also conducted interviews with several marketing professionals in San Antonio, Texas. Those interviewed are: the Chief Operating Officer of GDC Marketing & Ideation Michele Brown, the Chief Strategy Officer of GDC Marketing & Ideation Ana-María Phillips, an Art Director for GDC Marketing & Ideation Jessica Guerra, and the head marketer of Rackspace's Foundry for AI Rackspace (FAIR) department Julia Lopez. GDC Marketing & Ideation is a well-established full-service ad agency in San Antonio, Texas. Rackspace Technology is a cloud computing and technology company headquartered in San Antonio, Texas.

Key Takeaways

- AI technology is being integrated into the marketing field at a rapid pace
- Within hyper-segmentation, AI can be used to gather large amounts data, sorting through that data faster than previously possible in order to segment consumers into select groups and conduct more personalized marketing efforts

- To improve customer experiences & satisfaction, companies should focus on creating AI-based platforms and consider creating virtual assistant for their brands
- When looking at branding & advertising, marketers should consider unique ways to interact with consumers through AI. They should also look for opportunities to implement AI into internal efforts such as media buying
- Content generation is perhaps the quickest developing category for AI and marketing. Content generation can be used as part of branding & advertising campaigns to help companies brainstorm or speed up their creative processes

Industry Background

Artificial Intelligence (AI) technologies have been rapidly developing and integrating into marketing over the last few years, becoming commonly used in hyper-segmentation, customer experiences & satisfaction, branding & advertising, and content creation.

The American Marketing Association defines marketing as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (2023). In this definition, the key element includes marketing being the “process” of communicating offerings that have value for customers. Thus, this project will focus on such communication aspects of marketing—hyper-segmentation, customer satisfaction, consumer experiences, and improving branding and advertising.

Artificial intelligence (AI) can be used in various industries and fulfill many needs. At its core, AI is “a machine’s ability to perform the cognitive functions we usually associate with human minds” (McKinsey & Company, 2023). Within its capacities, AI is able to mirror the human mind by perceiving, learning, and problem-solving based on an environment. Although AI has been rapidly developing in the last few decades and is becoming increasingly popular on online platforms, the technology behind artificial intelligence dates back to 1940 through 1960 (Council of Europe, 2023). Some of the key milestones in the development of artificial intelligence since the mid-1900s include the development of the computer program Eliza in 1966— the first chatbot— which used algorithms and early natural language processing (NLP) programs to generate responses to questions (Karjian, 2023). In 1997, a recurrent neural network was proposed, which allowed for better processing of large sequences of data to connect patterns and predict the next likely scenarios. Now, this technology has become integrated into marketing and is used to help aggregate and predict consumer actions (Karjian, 2023). Just in the last decade or so, there have been developments with AI-assistants— seen with the release of Siri in 2012. In the last five years, Generative Pre-trained Transformers (GPT) technologies have advanced, including a type of Large Language Model (LLM) by OpenAI— first released in 2018 and then updated in 2023. Both of these technologies are pre-trained with large amounts of data and use neural networks to encode and decode prompts by users (can generate content based on both text and image prompts in 2023) (Karjian, 2023).

Within these developments, the artificial intelligence technologies used today can be broken up into seven main areas: machine learning, deep learning, robotics, expert systems, natural language processing, computer vision, and AI

ethics and safe usage (DatabaseTown, 2023). For the uses of AI in marketing, there was a need to handle mass amounts of consumer data and find patterns within it. These patterns need to be identified for marketers to create better communication plans and reach target audiences. Within this, there was a need for recently developed AI technologies to help in select communication practices. These sectors include hyper-segmentation, customer experiences and satisfaction, branding and advertising efforts, and content generation.

Hyper-segmentation

Hyper-segmentation is created by continually dividing larger consumer groups into smaller segments. Usually, segments are narrowed down in hyper-segmentation due to geographic location or increased psychographic information— including one's attitudes, beliefs, and lifestyle indicators. In hyper-segmentation practices, one of the most important areas of AI is deep learning, which is a subset of machine learning. In deep learning, large amounts of unstructured data (text, images, videos, and audio) are used to help extract patterns and segment them into categories. For example, companies can use deep learning to scan photos, recognize different objects in each photo, and put them into segments based on those objects. In marketing, this application can be useful to more easily understand customer preferences, scanning a consumer's unstructured data as it is found either publicly (social media, newspapers, etc.) or privately (on a company's website, rewards program, etc.) and segmenting them based on shared interests or preferences. Once these preferences are determined, this information can be used to create better customer experiences, aiming to increase customer satisfaction. One example of this is in how images on one's

social media can be used to see exactly what colors or styles of clothes certain age groups prefer. That data can then be used to target social media ads of select brands to the target consumers.

Customer Experiences & Satisfaction



More recently, AI-powered chat boxes and chatbots are used to improve customer experiences and satisfaction. Chat boxes and chatbots can be found on websites and can be most useful for helping answer questions or assisting in directing a customer's attention to what they were searching (Huh et al., 2023). A famous chatbot is LEGO's Ralph (on the left), who interacts with consumers through direct messages on Facebook Messenger. Ralph recommends gifts for friends and family based on customer inquiries (The LEGO Group, 2019). Although many chatbots like Ralph have been successful for large corporations, chatbots may not always be a success. In fact, The COO of GDC Marketing and Ideation, Michele Brown, mentions how their company has used chatbots before only to find that many consumers do not like them. Thus, it is essential to know your target audience before creating a chatbot.

Branding & Advertising

To increase brand awareness and generate ad revenue for companies, digital marketing is another great avenue. Digital marketing, as defined here, is any marketing operation that utilizes the internet and online-based technologies; it can also be thought of as online marketing. The main avenues that digital or online

marketing can be found on include websites, social media platforms, and email. Examples of digital marketing tactics on each of these would include banner ads, company websites, blogs, social media posts (from the company profile as well as advertisements), and emails sent to customers on a mailing list. The main applications of AI in digital marketing would include online advertising, personalized user experiences, chatbots, predictive analysis, content curation, content generation, email marketing, web designing, voice search optimization, and e-commerce (Gołąb-Andrzejak, 2023).

Some of these digital marketing applications have been previously mentioned in this white paper. Of the applications not previously mentioned, it is important to further discuss voice search optimization. Voice search optimization is usually used by companies to allow for consumers to make voice inquiries on their websites or over search engines (like Google) (Jacob, 2023). Once these inquiries are made, results are sorted based on keywords or phrases. In this way, this practice is an advancement to SEO (search engine optimization) as it allows search engines to generate results based on conversational phrases (Gołąb-Andrzejak, 2023). One company that uses voice search optimization is Amazon's Fire TV. When consumers use this product to connect with streaming apps on their television, they do not have to worry about manually typing in the names, categories, or the streaming platform of movies/television shows. Instead, users can simply vocally ask for certain apps or films to be opened (O'Neill, 2023). Regardless of the method of AI-specific digital marketing communication tactics, it is clear that businesses are relying more and more on AI technologies to further digitize their reach with audiences.

Content Creation

In branding and advertising campaigns, one way AI can help companies connect with customers is through content generation. Some of the content that AI can generate includes articles, blog posts, digital artwork, photos, videos, and slide decks (Huh et al., 2023). To create these types of content, many different AI platforms can be used. Some of the most popular ones are OpenAI's ChatGPT and DALL-E, the Adobe Creative Cloud apps, Midjourney AI, Jasper AI, and Google's Gemini (the replacement for Bard). To use these applications, one usually needs to type in a prompt and the AI softwares will use that information to output multiple examples. With this instantly generated content, the speed at which design work and copywriting is produced increases dramatically. Even so, these platforms may not produce perfect work as AI technology is still developing. All those I interviewed cautioned individuals not to take AI-generated content at face value, especially since AI technology simply outputs material based on large datasets, which means it could take someone's previously written blog or slogan and output it as "generated content."

Case Studies

There are many examples of how large B2C companies, such as Google, Etsy, LEGO, Amazon, and Coca-Cola, have used AI within their marketing efforts.

Hyper-segmentation

Google Search Engine

As part of its main functions as a product, Google Search engine is able to compute large amounts of unstructured data and analyze them, grouping the information based on commonalities. After information is grouped based on keywords or phrases, it is used as a consumer informational product, outputting information in the “results” that fit into a particular category. In this way, Google Search Engine is being used as a data-driven product that serves as a communication and informational tool to their users.

To better understand how [Google Search engine](#) improves communication with its users, it is important to know how AI plays a role in the segmentation and generation of content for specific consumers. To analyze the data of all the webpages with a domain found on Google, machine learning algorithms are used to find patterns. These patterns are then used to decide what webpages would best fit a search inquiry and should be pushed towards the top of the results (Baek, 2023). Artificial intelligence is also used to sort images and video content that fulfills a search inquiry. Even outside of just organizing and selecting the best search results, AI is used to better personalize search results for a particular consumer by looking at a user’s search history, geographic location, and past interaction with Google products (Baek, 2023). In this way, Google Search Engine is able to use AI to process data, find patterns, segment data, and then generate results based on particular search engine segments and user characteristics.

To illustrate this, we can consider a consumer who is trying to find a self-cleaning water bottle. In the Google search engine, this consumer may type that they want a “water bottle that claens itself.” Based on this information, Google Search Engine will first identify that there is an error in the spelling of “cleans” and will use ML to suggest an autocorrected search inquiry. After this, Google Search

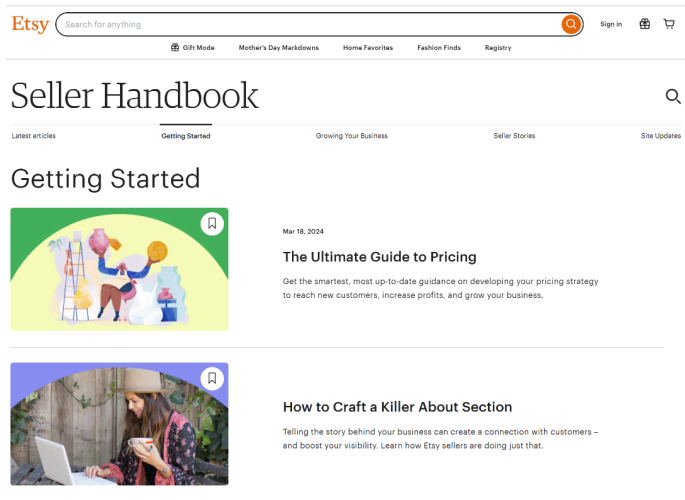
Engine will try and find patterns in one's past inquiries to guide personalized results to a consumer. This may include searching one's location and coming up with search results of where one could buy the product in a store near them. Finally, the ML algorithms will scan through all sources that relate to the customer inquiry and sort out pages it deems as spam. At the end of this, the consumer should have a generated list of webpages on Google Search Engine that have been tailored to them. While the operations of Google Search Engine are not new, they are constantly being improved with the integration of AI technologies, and now with improved ML practices, even images and voice inquiries of consumers can be used to search for results on Google.

Etsy

Started in the early 2000s, Etsy is an e-commerce site that specializes in selling artisanal and homemade products by connecting various sellers with potential buyers (Akshita, 2023). Since 2019, Etsy has put more emphasis into their marketing efforts, increasing their annual marketing spend from under \$250 million in 2019 to just under \$750 million in 2022 (Akshita, 2023). As part of these efforts, Etsy has increased its focus on SEO, giving sellers more information on how to utilize this AI-based tool correctly.

To optimize how customers are able to find Etsy products on search engines, most notably Google and Bing, Etsy uses AI and ML to organize the information presented on their website and to guide their content SEO practices. As part of their emphasis on SEO, AI-technology is used to sort through data and find keywords that link to various Etsy products on different areas of the website. Etsy also has a handbook (pictured below) to help sellers on their site better understand

how to improve SEO for their individual products. In this handbook, Etsy is able to



outline more in-depth how AI can improve the SEO process and one's search result placement by “circular internal linking,” which is essentially having a hyperlink that takes users between different pages on the same site (Akshita, 2023).

Imagine that there is a local jewelry artisan who makes custom designed sterling silver jewelry. If this seller wishes to sell their jewelry on Etsy, they will need to follow the seller handbook to set up their shop and understand the best way to generate interest in their product. First, this seller should create listing descriptors using bullet points and including URLs to provide information and links to different product pages. Next, the seller will create some visual elements for their shop. A unique banner background at the top of the page as well as numerous photos and videos of the products will be the most important elements to include. There should also be some photos and information on the seller.

These URLs, photos and videos, and numerous specific keywords are important to gain the best results, catering to Etsy's AI algorithm and creating success through SEO. The URLs to different product pages are an example of circular internal linking and communicate that a source is reputable. It also helps an algorithm understand the overall structure and navigation of your webpage. The use of multiple photos and videos also indicates a webpage's trustworthiness to the AI algorithms.

After filling out the information on their listing descriptions, the seller should think about adding keywords to their product categories, descriptions, tags, and titles. In all of these, it will be important for the seller to be as specific and concise as possible. Thus, a title of “customizable sterling silver rings” would be better than “custom-made interchangeable designs on sterling silver rings for men and women.” Although less descriptive overall, the keywords of “custom” and “sterling silver” in the shorter title will be easier for consumers to read while still hitting on those descriptors to be used as keywords in SEO. In creating keywords, it is also important to use multi-word keywords and specific subcategories so that products will appear in the results of more specific and relevant searches. Examples of more specific phrasing that should be included may be “sterling silver rings” over “rings” as well as “custom jewelry” as a subcategory for your listing instead of just “jewelry” or “crafts.”

In this example, it can be understood that using URLs and having numerous photos and videos on one’s webpage can indicate to AI that a source is trustworthy and should be boosted in the results list of inquiries. Furthermore, having specific keywords and photos/videos can increase the number of conversion rates a seller gets as it links consumers with specific products that fit their inquiries based on AI’s analysis of past purchase behavior, keywords, and credibility.

Takeaways

For larger companies like Google or Etsy, using AI to segment audiences can be very helpful. As discussed with Google, AI allows the company to achieve hyper-segmentation and thus target consumers in a more personalized manner. This type of AI-backed segmentation is what larger companies most likely do.

However, according to local San Antonio's marketing firm GDC Marketing & Ideation, the firm is not quite at the scale where these types of segmenting processes would be necessary or even possible (M. Brown, personal communication, March 27, 2024). Thus, it is less likely that your more local or regional companies are taking on the challenge of hyper-segmenting audiences with AI as of right now. However, many corporations, no matter if they are global or local, are making use of the newer AI-backed SEO programming. One example of companies adapting to this comes from the head marketer of Rackspace's Foundry for AI Rackspace (FAIR). She mentioned that Rackspace, and other companies, have had to learn, or hire those who have learned, how the new AI algorithm for SEO works to achieve the best possible results.

Customer Experiences & Satisfaction

LEGO

As mentioned earlier, one application of AI in consumer experiences & satisfaction is chatbots. An example of a chatbot is LEGO's Ralph. To interact with the LEGO chatbot, a consumer may send a message to LEGO on Facebook Messenger, indicating that they are looking for a LEGO set for their nephew. In response, Ralph may ask the customer to share how old their nephew is as well as some of his interests. To this, a customer may reply that their nephew is 8-years-old and really enjoys STAR WARS. Based on this information, Ralph can use its AI capabilities to scan LEGO's website and internal customer data to find patterns in the purchases made by customers looking for similar items. As a result, Ralph may determine that a Mandalorian LEGO set would fit the customer inquiry. Finally, Ralph would output this information, using its NLP to message the customer in a human-like

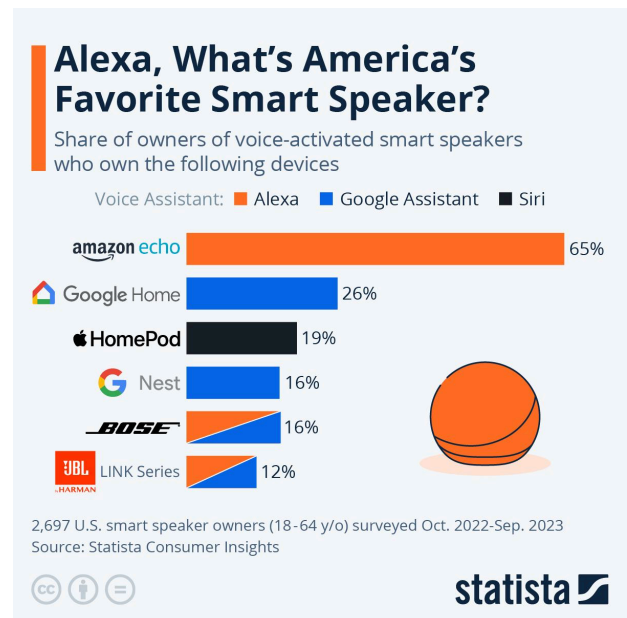
manner and make sure that they are satisfied with the suggestion. Leaving from this interaction, customers should be satisfied with the ease at which their shopping experience was conducted.

Amazon's Alexa

One of the biggest reasons that companies invest in AI technology is to help increase their customer experiences and satisfaction levels through personalization. To provide personalized service and ease of use, many companies have started to invest in creating AI-based platforms, which use AI-technology to replace repetitive tasks and speed up operations by incorporating NLP, data analysis, problem solving, and other various functions (Dawar, 2018). Although a talking virtual assistant, Alexa can be considered an AI-based platform because of its capabilities to connect users with mass amounts of information across various sources online.

On their e-commerce website, Amazon is always providing suggestions of what users might like to buy based on their previous shopping habits or similar searches. Behind these suggestions is the power of machine learning, which is able to segment and suggest inquiries to users in a similar fashion to Google Search Engine. Outside of their e-commerce platform, Amazon has expanded into products and services such as TV streaming and smart speaker devices. Tying these products together into an ecosystem is Alexa, Amazon's AI virtual assistant

(Fleck, 2023)



and interactive AI-based platform (Dawar, 2018). Alexa can provide “interest-based” ads to users, all as part of a strategy to create seamless consumer experiences through technology. These “interest-based” ads allow Alexa to pull one’s shopping data from Amazon’s e-commerce website to recommend products and brands. For example, if a consumer had previously bought a Ninja blender on Amazon and is now looking for an air fryer, Alexa may suggest the Ninja air fryer based on prior purchase with the Ninja brand, even if it is not the best fit for one’s inquiry.

Because of the rise in popularity of virtual assistants like Alexa, there is a projected shift away from traditional brand loyalty. Instead, consumers will rely on AI-powered virtual assistants to recommend products. This will shift loyalty away from a brand to a “trusted AI assistant” (Dawar, 2018). With the increased loyalty and quick consumer recommendations, AI-assistants like Alexa will be crucial to building customer experiences and satisfaction. This will be done using ML to sort through various products as well as a consumer’s past purchase decisions to recommend the best products to satisfy a consumer need.

Branding & Advertising

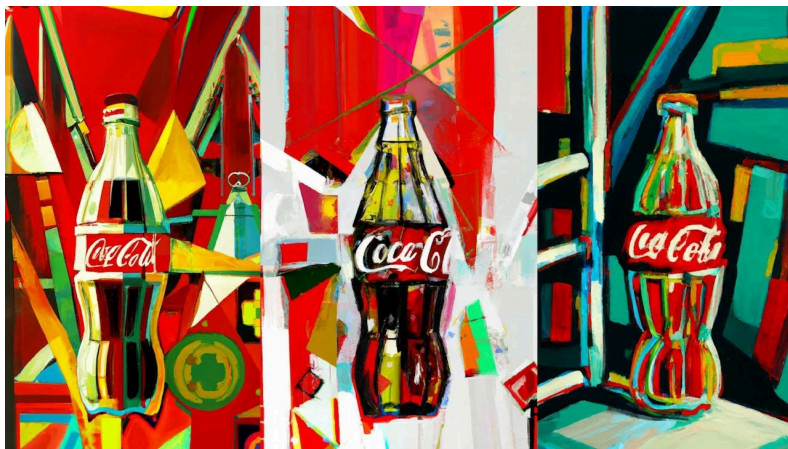
Coca-Cola

In March of 2023, Coca-Cola created the branding campaign of “Create Real Magic” to engage with consumers through creativity and AI technologies (The Coca-Cola Company, 2023). As the main strategy for this campaign, Coca-Cola focused on engaging artists and younger generations by giving individuals access to creative archives and asking those interested to use those materials to make innovative artwork inspired by Coca-Cola. To accomplish this, Coca-Cola partnered with

OpenAI, one of the most widely used generative AI platforms and the owner of ChatGPT and DALL-E (an AI system that focuses on generating images and artwork) (The Coca-Cola Company, 2023). OpenAI's technology was able to run Coca-Cola's "Create Real Magic" AI platform, accessible as a [website](#).

On this website, digital artists from around the globe are asked to create and submit original artwork with the help of ChatGPT, DALL-E, and the Coca-Cola creative archives. An artist interested in submitting a created work would need to go to the Create Real Magic website, download selected creative materials in the Coca-Cola brand archives, and then use various combinations of brand-specific text and image inquiries until a desired result is generated. Thus, Coca-Cola's implementation of generative AI was an effective way to allow consumers to interact with the Coca-Cola brand, generating word of mouth through social media and local engagement.

Outside of just increasing brand engagement with young Millennials and Gen Z audiences of diverse identities, Coca-Cola was also able to create effective advertisements from this campaign. Because this contest incorporated individuals



making AI-generated artwork centered around their brand, Coca-Cola was able to take the best artwork submissions and turn them into advertisements. In creating these ads, Coca-Cola was able to further reach their target audience of both young Millennial

and Gen Z consumers. This was because the ideas and aesthetics of each of the

artworks created by Millennials and Gen Zers communicated shared values in these consumer segments. An example of one of the winning AI-generated artworks for Coca-Cola can be seen above.

Content Creation

For marketing professionals like those at GDC Marketing & Ideation, as well as many other marketing agencies, AI-sofwares are used to create storyboards for videos and mock advertisements, helping to speed up the brainstorming process. In addition, GDC Marketing & Ideation's Chief Operating Officer Michele Brown as well as their Art Director Jessica Guerra described in their interviews how AI softwares such as ChatGPT can be used to find background research for select campaigns. Even as research is found using ChatGPT, it is acknowledged that the information generated may sometimes have errors in it, which is why the company makes sure to double check everything that ChatGPT generates for them, using the software as a springboard for ideas. Similarly, Art Director Jesscia Guerra emphasized in our interview how use of AI-generated photos, ad copy, or other design materials are never left as the final product without the input of human intelligence working alongside the AI. In this way, some AI-generated content is used to speed up the storyboard process for print and video campaigns.

An example of this, as mentioned by GDC Marketing & Ideation Chief Strategy Officer Ana-María Phillips, came from a video advertisement produced for San Antonio's Emergency Medical Services (EMS) (A. Phillips, personal communication, September 15, 2023). In this case, GDC was able to use software similar to that of OpenAI's DALL-E to create images and videos for their client of San Antonio EMS Services. In the AI-generation prompt bar, the marketing agency

was able to describe different kinds of actors they had envisioned in the role, being able to generate people of different ethnicities, wearing different facial expressions, and having different facial features (such as mustache versus no mustache) all portraying an EMS worker in an ambulance.¹ By comparing their various ideas for the look of the man in the storyboards, GDC was then able to choose the one that fit the campaign, working off of this draft to create their final video commercial (A. Phillips, personal communication, September 15, 2023).

Outside of the example of using AI content generation for storyboarding, Art Director Jessica Guerra also walked me through an example of how images might be altered with Adobe Photoshop's AI application for use in digital and printed media. Jessica started off by giving me a hypothetical scenario: a designer needs to create a graphic for a printed banner design for the San Antonio rodeo but cannot find an image that perfectly fits their needs. In the first step to finding a solution to this, the designer might search through a bunch of images to find one of a cowboy on a horse that they like for the design. After finding an image, they see that the size of the image is too small. Instead of searching for another photo, the designer decides to download the image into Adobe Photoshop.

Once in the program, generative expand can make the image the correct size needed. After the image is expanded, the designer decides that they want the cowboy to have a more serious expression and to have a cowboy hat on. To create the cowboy hat, they can use the lasso tool in Adobe Photoshop to outline the area where they would like the hat to be. Then, they use generative AI to create the cowboy hat, making sure to put specific details in the AI-generation prompt, such as that they want the hat to be "tan." To change the expression on the cowboy's

¹ A visual example could not be acquired because the materials are part of GDC Marketing & Ideation private client materials.

face, the designer can use the AI neural filter to make him look more serious, and the designer can also make the cowboy look younger or older with the AI neural filter. After making these changes, the designer may be happy with their new image of the cowboy on a horse and use it in their printed design. This example explains just some of the generative capabilities of AI softwares that are commonly used by graphic designers to speed up their work.

Challenges

With the continual development and use of AI technology, many concerns have arisen. The two main categories that people are concerned about are businesses' use of AI technology as well as general ethical concerns.

Use of AI in Businesses

As AI platforms become more readily available to the public, many will begin to use these tools on their own through trial and error. For content generation in particular, some smaller businesses may decide to pay for and use OpenAI's platforms, or similar platforms, on their own instead of paying someone to create marketing materials for them. However, this can pose some issues. First and foremost, the work produced by AI may end up being very low quality if one does not know what keywords to use in the AI prompts or if one does not double check work after it is produced. In fact, Julia Lopez, the lead marketer for Rackspace's FAIR foundation, points out how it is often obvious when blogs are written with AI, and this low quality of work put out in front of the consumer is not as helpful as what would be produced by a human. Besides the work being low quality, not

double checking it could also lead to potential plagiarism issues since AI can pull large parts of one's work into their written and image-generated content if they have access to that data over the internet.

Finally, the use of AI in business practices may make consumers wary since many do not trust AI. This distrust has in part been created by the instances where AI technology has been incorrect in some of the “facts” it gives to consumers as part of its content generative capabilities (Vincent, 2023). At its launch event in 2023, Google's Bard incorrectly stated that the James Webb Space Telescope “took the very first pictures of a planet outside of our own solar system.” In response to this remark, many astronomers caught the mistake and pointed towards the [NASA website](#) for the correct information (Vincent, 2023). Because AI generates content based on advanced patterns and neural networks, it performs some tasks based on analysis and preprogrammed knowledge (Huh et al., 2023). Thus, some AI-generated articles may have false content. This can become problematic when articles full of misinformation are available online, especially when search engines like Bing and Google are transitioning to using AI to generate search results (Huh et al., 2023). This means that some search results may appear to be reputable but are full of misinformation. In addition, Bing is using AI generative functions to create snippets/summaries of articles in their result list, which could also lead to misinformation if webpages are not summarized accurately (Huh et al., 2023).

Even if AI is not perfect, it does not seem to be going anywhere. Thus, to overcome consumer wariness over use of AI, COO Michele Brown recommends that businesses be overly transparent and open about their AI usage to consumers. In the future, this transparency will help many embrace AI technology and overcome their wariness of it (M. Brown, personal communication, March 27, 2024).

Ethical Uses of AI

The potential for unethical and manipulative uses of AI are most concerning to the public. Every person that I interviewed expressed concerns about AI usage to create fake images/videos. Jessica Guerra even went so far as to point out that when there is an influx of fake videos/photos, it does not matter if those images are later proven to be real/fake by an authentication software. Once not trusting what you see becomes the norm, then what you believe to be real or fake will all be based on perception rather than fact (J. Guerra, personal communication, March 27, 2024).

When one maliciously creates false images and videos, they are often referred to as deepfakes. Explained further, deepfakes are images and videos that are created by taking someone's physical features and creating falsified videos and photos. This has especially been an issue for celebrities because these figures have many publicly available images and videos that can be used in content generation. In the [example](#) to the right, one can see just how realistic deepfakes can be.



Although deepfakes have been mainly used to recreate videos and images of celebrities, they could also be created of any individual who has publicly available photos, videos, and audio files (such as on social media). In fact, in 2023, there was a rise of AI voice cloning scams. One of these AI voice cloning scams reported a mother getting a call that she thought was from her kidnapped daughter asking for

ransom money (Mastis, 2023). Thus, as AI develops, its harmful uses have also become more prevalent.

In terms of marketing, understanding the benefits and challenges of AI-generated content is important to keep in mind. This is because content generation is being used as a tactic for many branding and advertising campaigns and has the potential to be harmful to consumers if incorporated incorrectly (Hermann, 2021). In this, marketers should be sure to use AI-generated content as an aid to their operations, but not blindly rely on the technology. Being aware of the downfalls of AI will also ensure that marketing efforts are not misleading a company's customers.

Looking Ahead

As discussed throughout this white paper, AI has been widely integrated into marketing. Many large companies are already integrating AI into their operations, using it to segment audiences, improve personalized experiences to the consumer, and to speed up how quickly materials may be made with content generative AI. Even so, many local companies may be behind the curve. Thus, they need to look at expanding their AI marketing efforts into the four main categories outlined in the case studies of this paper— hyper-segmentation, customer experiences & satisfaction, branding & advertising, and content generation. As AI continues to expand in its use, it will also be important for many to keep in mind how the technology can be used incorrectly or even maliciously to avoid falling victim to its pitfalls.

In the future, there are predicted to be many impacts of the integration of AI into business practices. From a positive standpoint, it is clear that the integration of AI into businesses will continue to make operations run more efficiently and will allow valuable resources, (time and money), to last longer. As Julia Lopez pointed out, this can be done not only through the consumer-facing applications of AI, but also through improving more backend processes, such as improving a company's intranet so that relevant project information may be found more easily. For marketers, AI can be helpful in all the categories mentioned in this paper, but it can also be used to improve other practices, such as media buying. In media buying, AI can keep track of message effectiveness across platforms and signal marketers when the best times to purchase ad spaces are (M. Brown, personal communication, March 27, 2024).

On the flip side of these positive outlooks of AI integration into businesses, there are some huge negatives that need to be discussed. As the members of GDC Marketing & Ideation that I interviewed all discussed, one of the outcomes that they see of AI implementation is the loss of jobs. Even in their own agency, there is not a need for a copywriter because of AI's ability to help employees brainstorm copy through content generation. Thus, as AI continues to speed up daily tasks so that fewer people can output greater amounts of work, some lower-level positions may start to get eliminated. As Art Director Jessica Guerra iterated, the biggest impact might be to those graduating from college looking to enter the workforce with little to no job experience. To these individuals, there will be little use for their talents since entry-level positions are mainly tasked with smaller projects that may be done with AI. Even if a young person manages to get a job in

marketing, they will be under constant stress, needing to always be ultra-creative and ultra-strategic to be valuable enough to maintain their job.

While this is daunting to think about as the future of marketing with AI, it is not just the marketing field that will be affected. For example, AI also has coding capabilities that could take jobs away from young employees. Regardless of how it will change various fields, one thing is clear about AI- corporations need to integrate it into their operations (J. Lopez, personal communication, February 23, 2024). Like with all new technologies, those who do not adapt to and use the technology will be left behind.

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