VIRTUE ETHICS IN AI ADVERTISING:

A CONTENT ANALYSIS OF AI ADVERTISING COMPANY WEBSITES

By

Wendy King

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Science in Media and Communication

Middle Tennessee State University

May 2022

Thesis Committee :

Tricia Farwell, PhD., Chair

Sanjay Asthana, PhD., Thesis Committee

Sally Ann Cruikshank, PhD., Thesis Committee

To my children, the lights which guide my desire to seek knowledge and keep my wonderment alive.

ACKNOWLEDGEMENTS

I would like to express my sincerest gratitude to my faculty mentor and Thesis Chair Dr. Tricia Farwell without whom this thesis would not have been possible. Her willingness to be available for countless hours, endless patience, and vast knowledge of advertising was truly a gift.

My thanks also go to my thesis committee Dr. Sanjay Asthana and Dr. Sally Ann Cruikshank for their guidance and support. I would also like to acknowledge Dr. Clarence Johnson for his part in expanding my knowledge of ethics and technology as well as Dr. Ken Blake for his assistance in organizing my results.

Finally, I would like to thank my husband for the support he has provided me in this journey as without it I would have not had the courage to write a single word.

ABSTRACT

Technological advances have made it possible for the advertising industry to rely on advanced technologies such as artificial intelligence to facilitate effectiveness. As a result, previous efforts may no longer be sufficient in maintaining ethical practices in the advertising industry due to the AI often operating autonomously or within parameters that could lead to consequences affecting consumers in a negative manner. This study is a content analysis of the messaging on the websites of organizations providing AI advertising services to determine if the messaging reflects practices in line with virtue ethics. It expands the current literature by building support for the use of applied virtue ethics and demonstrating the importance of conveying those ethics. Using eight virtuous character traits as indicators the researcher found very few of the websites studied contained messaging indicative of applied virtue ethics. These findings align with previous research in the need to increase ethical considerations in the advertising industry yet show with the addition of AI in advertising there has been progress.

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Chapter 1
Introduction

The convergence of advertising and the tech industry was a natural evolution as the advertising industry needed to understand their audiences in greater depth and developers created artificial intelligence (AI) models to analyze, organize, and implement tasks needed to use large data sets (Chen et al, 2019; Jurkiewicz, 2018; Qin and Jiang, 2019). As digital media technology opened new avenues for advertisers to not only reach their audiences, but also learn more about audience behaviors and habits, concern for its use in advertising emerged. The development and implementation of AI used in advertising has raised ethical concerns such as data use, bias, privacy, and explainabilty (De Bruyn et al., 2020; Jurkiewicz, 2018; Lambrecht and Tucker, 2019, Miltgen et al., 2019; Rai, 2020; Watts and Adriano, 2020).

Much of the research done in the late 20th century on ethics in advertising surrounded print and traditional broadcast media. The main concerns for traditional media ethics focused on the impact of the messaging in advertising (Latour and Henthorne, 1994; Nwachukwu et al., 1997; Pollay, 1987; Treise, 1994). Digital advertising, however, involves many processes that traditional advertising media did not have or at least were not prevalent in the industry in the past. For example, advertising practitioners now use AI for programmatic buying, (Qin and Jiang 2019), programmatic creative (Li, 2019), as well as other processes such as Natural Language Generators (NLG), speech recognition, image recognition, and predictive modeling to help facilitate efficiency in campaigns (Kietzmann et al., 2018). Due to the rise of AI use in advertising

and the potential impacts of the use of AI on society (Goldsmith and Burton, 2017; Martin, 2018) it is necessary to explore if advertisers are taking an ethical approach to the practice and how they are conveying that through their messaging.

Given that those who create advertising are not necessarily versed in technology and those who are designing the technology are not necessarily educated in advertising, efforts have already begun in cross discipline research in order to create a more cohesive understanding of the implications and complexities of artificial intelligence being used in advertising (Chen et al., 2019; Li, 2019; Qin and Jiang, 2019). However, the cross discipline research has, for most part, focused on the ways AI is being used in advertising, the changes occurring in AI, or the functionality and issues of AI use. Very little if any research has been done exploring the organizations that develop and provide AI services using a specific ethical framework.

This study looks to fill the gap in research concerning ethical considerations in AI development and use in advertising by investigating how the messaging on the websites of companies that develop and provide AI advertising services reflects the traits of virtue ethics. Due to the tendency to anthropomorphize AI and attempt to apply traits such as trust to machine intelligence making ethical reasoning in the field difficult, the researcher chose virtue ethics as a framework (Ryan, 2020). Virtue ethics focuses on individual character traits and actions of humans (Whetstone, 2001). Specifically, this study is a content analysis of the websites of 10 companies that develop and provide AI advertising to determine if traits of virtue ethics can be detected in the messaging. This study will add to the research and knowledge on the ethics in advertising by determining

if companies that are developing and providing AI advertising services are taking ethical

considerations in a virtuous manner and how they are communicating these virtues to the

public.

Chapter 2
Literature Review

The convergence of technology and the advertising industry has presented a situation in which the ethics that once served the industries must now transition into a framework that will serve the new amalgamation of AI advertising. Ethical theory for advertising has long been a topic among scholars and there are many foundational ideas that can be explored. This literature review will provide a brief history of some research conducted in modern advertising media such as print and broadcast media, and the evolution of the research as digital media became integrated into the practice of advertising. This will be followed by an overview of how AI is being utilized in advertising, and a look at some concerns that have arisen with the use of AI in the field. The review will conclude with an exploration of AI ethics and a rationalization of the application of virtue ethics to combat the issue of concern.

Ethics in Contemporary Advertising

Peggy Cunningham (1999) defined ethics in advertising as "what is good or right in the conduct of the advertising function. It is concerned with questions of what *ought* to be done, not just what legally must be done" (p.499). Much of the research conducted in ethical advertising in the latter quarter of the 20th century focused on the effects of advertising on the public and societal values (Pollay,1987) rather than the way advertising professionals viewed the industry and its practitioners (Hunt and Chonko 1987). Pollay's (1987) review of literature on advertising from 1950-1984 centered on the "unintended consequences" of advertising on society and culture from the point of

view of those not in the industry (Pollay, 1987, p.4). The review discusses the

perspectives of scholars believing persuasion efforts directed at human behavior

presumably would have consequences leading to negative impacts on society. These

consequences included, stereotypes, marginalization of people and cultures, degradation

of language and spirituality, idealization of "the good life" as well as causing emotional

disruptions such as anxiety, insecurities, and disrespect for others (Pollay, 1987, p.23).

He called on researchers to continue to study these effects and create discourse so that the

advertising industry may see itself from a critical position and apply ethics within the

industry to dampen the perceived unintended negative consequences (Pollay,1987). This

article sparked debate as Holbrook (1987) wrote a rebuttal asserting that Pollay had

merely regurgitated the opinions of other scholars and had not properly defended his

stance. Holbrook contended advertising was part of pop culture incapable of the

"monolithic impact" Pollay had postulated (Holbrook, 1987, p.98). The debate continued

between the two resulting in a call for advertising research to include the perspectives of

practitioners in the industry.

In the same year two researchers had already realized a need for an investigation

of the ethical perspectives of executives in advertising agencies (Hunt and Chonko,

1987). A survey of agency executives found the most frequently occurring concerns were

"fairness to the client" and "creating honest, non-misleading, and socially desirable

advertisements" (1987, p.19). The researchers also discovered worry regarding fairness to

others such as vendors, management, and other agencies as well as concerns with

"honesty in advertising," such as: unethical products, race and gender issues, and the

level of honesty they could expect from their clients (1987, p.20). Based on the responses

Hunt and Chonko's (1987) findings led them to the conclusion the ethical concerns that needed to be addressed had less to do with the advertising content and more to do with the codes of conduct of those in the industry. This conclusion led them to encourage the advertising industry to address these issues by "broadening the scope of their codes" (p.23).

Though research was continuing to expand and include other perspectives as Drumwright (1993) pointed out, most of the research in ethics in advertising was being done on a "macro" level which either concerned debates of legal aspects that had to be addressed or the effects of advertising on the public from the perspective of non-practitioners of advertising. This trend continued in the last decades of the 20th century as research primarily focused on what practices consumers might view as unethical in advertising such as advertising to children, sexual persuasion, or harmful products (Latour and Henthorne, 1994; Treise et al., 1994). While these considerations were important during this time the use of innovative technology was increasing (Rust and Oliver, 1994). Researchers began to realize there would be new considerations regarding the ethical use of the changing technologies in the industry.

The Changing Landscape

Rust and Oliver's, *The Death of Advertising* (1994) made many astute observations on the changing landscape of advertising as information and communication technologies and media began to converge with one another via "computers (both hardware and software), telecommunications, information services, CATV, consumer electronics, and content providers such as entertainment, news, and educational services" (1994, p.73). The predictions they made on media fragmentation correctly anticipated

the appearance of algorithmic advertising tools and the necessity to realign how advertising would become more interactive and a "voluntary" activity (Rust and Oliver, 1994, p.73). The researchers called on academia to take into consideration the modern technologies and again expand the scope of their research such as creating new models that dealt with how to communicate with audiences in digital media as well as how the audiences were reacting to it.

Nwachukwu et al. (1997) contributed to this conversation by examining how the ethical decisions made by advertisers could be affected by other variables such as individual autonomy, consumer sovereignty, and the type of product. Their research exploring the ethical perceptions of advertising practitioners and the correlation to the nature of the ad, the product, and the target audience found "that perceptions of consumer sovereignty, individual autonomy, and the nature of the product play significant roles in the ethical judgment of advertisements" (Nwachukwu et al., 1997, p. 114). Their findings were important as they led to the need for additional variables to be considered when gauging the ethics of advertising. For example, an ad targeted at someone with a lower level of perceived autonomy such as a child would need to be evaluated differently than an ad aimed at someone with a higher level of perceived autonomy such as an adult.

As advertising began to embrace new technologies the use of data mining and consumer profiles became more popular tools in advertising targeting. Researchers began to take into consideration the ethical practices and effects on society regarding issues such as privacy, transparency, and how the data was being used (Danna and Gandy, 2002). This research concluded narrow targeting through data mining could lead to unfair practices such as price discrimination, market discrimination, and bad data resulting in

less effective campaigns (2002). Drumwright and Murphy (2004) examined the ethical culture within the industry by interviewing a heterogenous pool of practitioners in senior level positions from multiple departments in various sized markets. The informants were asked questions pertaining to ethical issues in advertising at three levels: society, organization, and individual. The researchers found the informants fell into two groups of more or less ethical sensitivity with varying degrees. Based on their findings either "moral myopia" or "moral muteness" occurred in individuals from both groups. The researchers defined moral myopia as a lack of being able to see or acknowledge any kind of ethical issues and moral muteness encompassing an acknowledgement of issues but a hesitancy or refusal to speak up about them. Drumwright and Murphy (2004) found moral myopia presented in various ways such as passing the responsibility of dealing with the negative effects on to the consumer, assuming consumers were too smart to be duped and ethical considerations were unnecessary, and a misunderstanding of law and ethics; that as long as the practices of the agencies got past the lawyers there was no need for concern. Whereas moral muteness occurred in forms of compartmentalization, fears of conflict with the client, a lack of incentive, and "fear of opening Pandora's Box" (2004, p.15).

As the integration of digital media into advertising grew, Drumwright and Murphy (2009) conducted multi method research further exploring the framing of ethics internally and publicly in the advertising industry and in advertising academia. The methods included interviewing practitioners and department chairs and directors of university advertising programs, as well as performing a content analysis of the ethical messaging on the websites of the 25 largest agencies at the time. Through their interview

with industry practitioners, the researchers found a shift in the attitudes of the practitioners occurred when the practitioners were questioned about ethical guidelines in place regarding nontraditional media as opposed to traditional media. The answers they received indicated that the lack of clear regulation regarding the internet led to more opportunities to misuse or misunderstand the media. "Technology driven new media were characterized as 'The Wild West' -- a rough and tough, no-holds barred context in which the regulations, guidelines and controls of traditional media are absent" (Drumwright and Murphy, 2009, p.87). The practitioners conveyed concerns arriving with digital media included considerations such as privacy and transparency regarding data and a lack of control over consumer created content. The researchers' content analysis of 25 industry websites examining the public facing messaging of ethics brought varied results. The researchers found only 2 of the 25 websites had considerable ethical content and only 1 of the 25 presented that content in a "prominent, comprehensible and easily accessible way" (2009, p.91). Of the other 23 websites 13 had content addressing ethics in various ways such as mission statements and hiring practices while 10 of the 25 contained no content regarding ethics at all. To aid in the understanding of the advertising profession, the researchers conducted interviews with academics to gain an understanding of the incorporation of ethics in advertising curricula in graduate and undergraduate education. The researchers found all of the programs did require an undergraduate course that covered ethics to some degree, but none of the programs had ethics course requirements for graduate levels. The undergraduate courses varied in subject matter though many were a combination of media and law courses and only one of the programs reported having a required course specifically designed for advertising ethics.

Research was expanding to include many perspectives of how ethics were being considered in advertising, but the landscape was continuing to change. The emerging digital media convergence resulting in changes occurring in advertising continued the necessity of broadening the scope of research to include the technology as well (Kerr and Shultz, 2010).

AI in Advertising

Digital advertising has been a growing industry for over 25 years (Li, 2019) and the use of AI in advertising has added to the popularity of digital advertising due to its efficiency (Kietzmann et al.,2018)**.** The appearance of AI as a tool in advertising offering more structured ways to complete tasks involved in the process of advertising (Kietzmann et al., 2018) has opened new areas for research. Current research in AI in advertising largely centers on the perspectives of advertising academics and practitioners in the advertising industry embracing the possibilities and promises AI brings to the table (Chen et al. 2019; Childers et al., 2018; Qin and Jiang, 2019) such as natural language processing (NLP), image recognition, and speech recognition (Kietzmann et al., 2018) rather than the ethical implications of the technology.

Before continuing, it is necessary to define AI in order to understand how it is being applied within the industry of advertising. AI in its most simple definition is one or more algorithms that are working together in order to perform the task of gathering and organizing data but can also be "systems that learn from data without being explicitly programmed" (Christian, 2020, p.11). Regarding the use of AI in advertising researchers have defined it as "a system's ability to correctly interpret external data, to learn from

such data, and to use those learnings to achieve specific goals and tasks through flexible

adaptation" (Kaplan and Haenlein, 2019, p.17) and "a set of disruptive technologies

which simulate human intelligence and realize machine intelligence" (Qin and Jiang,

2019, p. 338). These definitions demonstrate the need for AI to be considered when

evaluating ethics in advertising as the models are a decision making component of the

advertising process. Machines completing tasks and making decisions that humans were

once responsible for is an indication there is a need for research in advertising ethics to

consider aspects of the functionality of the models being used.

Data Collection

Data collection has long been a practice of organizations in order to better

understand consumers (Huh and Malthouse, 2020). The most common way to find data

on target audiences in the past was via Nielson services, though this method was often

flawed because the information was based on small sets of data points (Chen et al., 2019).

The practice of gathering consumer information through customer relationship

management (CRM) technologies quickly increased in the 90's (Libai et al., 2020).

Amidst the maturation of digital media and its technologies data mining became an

excellent method of acquiring consumer information. First party data was gathered via

consumers interactions with the companies through purchases, use of a loyalty card, or

interactions with a company's website (Libai et al., 2020). Companies then aggregated

the data to build consumer profiles to facilitate more effective communication between

consumers and organizations (Quinn, 2019; Le Borne-Bachschmidt, 2016). Second party

data is the information companies have on consumers which they share and trade with

partners or similar companies to increase the effectiveness of both brands advertising efforts whereas third party data is collected and sold to other companies (Le Borne-Bachschmidt, 2016).

Much like their traditional print and broadcast predecessors, internet platforms realized the audiences could themselves be the product. With millions of users on the internet and an almost infinite number of spaces for ads to be placed there needed to be a structured way to buy and sell the ad spaces. First, second, and third party data now commonly referred to as "big data" have allowed for advertisers to gather more precise information concerning consumers. AI models were developed specifically to organize the vast amounts of data that was being accumulated by advertising agencies to utilize the data for effective ad targeting (Jurkiewicz, 2018). This created a new business model within the industry in which data could be bought sold or traded between companies evolving into other processes now called programmatic buying (Qin and Jiang, 2019; Helberger et al., 2020).

Programmatic Advertising

Programmatic buying has completely changed the way advertisers buy media space allowing the advertiser to serve personalized ads to individuals through the use of AI that can aggregate and utilize large amounts of data sets rather than scattering ads to mass audiences that may not fit the target demographic (Chen et al., 2019; Malthouse et al., 2018; Qin and Jiang, 2019). What previously took many planning and man hours to accomplish is now done in milliseconds by AI using data gathered and organized by data management platforms (DMP), demand side platforms (DSP), supply side platforms (SSP), and ad exchange platforms (ADX) resulting in optimal purchasing of ad

placements through a system of real time bidding (RTB) (Chen et al., 2019; Helberger et al.,2020; Qin and Jiang, 2019; Zhang et al. 2016). As Libai et al. (2020) explain it " in the context of customer relationship management, these technologies enable firms to analyze data and interact with consumers faster and on a larger scale" (2020, p.45). Currently, programmatic media buying is the principal means of buying digital ad spaces. Because of the effectiveness and success of the strategic targeting of ad placements by AI programmatic buying has grown quickly and was expected to surpass 85% of digital ad spending in 2020 (IAB, 2020).

AI has also been identified in changing the creative processes of advertising as well such as ad creation and copy writing (Qin and Jiang, 2019). Chen et al. (2019) identified in-depth the ways programmatic advertising is reconstructing the industry increasing the effectiveness of digital advertising through automation in their research conducted on programmatic creative. The technology uses a system of AI modules to contextually analyze data sets in real time to deliver effective personalized messaging (Chen et al., 2019). Programmatic creative has advanced from merely delivering ready-made ads to specifically targeting individuals with highly personalized ads (Li, 2019). This specificity begs the question of whether the AI will follow current advertising regulations or be satisfactory to the client's branding (Chen et al., 2019).

Programmatic creative has matured from simply using data analysis to place premade ads to real time generation of ads based on a company's stored data on a consumer (Li., 2019). Programmatic creative involves the use of a variety of AI systems working together to create and evaluate ads. A programmatic creative platform uses dynamic creative optimization (DCO) and programmatic advertisement creation (PAC) to

work (Chen et al., 2019). Chen et al. (2019) explain the significance of this technology and the reasoning of it becoming standard practice:

> Machine learning algorithms can predict the performance of the advertisements and select the one that best fits the interests of a target audience member according to his or her tags. After serving the advertisement, the machine learning algorithm will also use real time performance data to fine-tune the model and optimize the advertisement for the next round. Without PCP technology, it is prohibitively expensive and slow for advertisers to do such a process manually (p.350).

The algorithms are able to rely on machine learning in order to provide context to the process. Although the consumers profile does not usually change much in the sense of demographics or interests per se, the AI technology can detect things that do change consumer's buying behavior as a result of outside forces such as weather and adjust accordingly using a large scale of creative designing to creative effective personalized content (Chen et al., 2019).

Programmatic creative also uses natural language generation (NLG) to place keywords in ads in order to make them more effective. NLG, a subset of natural language processing (NLP), utilizes AI to process human language and create original content based on data (Kietzmann et al., 2018; Del Rowe, 2019). For example, the name of a consumer's location may be placed directly in an ad by AI to make the ad feel more relevant (Chen et al., 2019). IBM Watson was trained to write copy for Toyota advertisements customized for over 100 audience segments (Kietzmann et al., 2018).

Programmatic creative is a newer process than programmatic buying but is expected to expand as its predecessor has (Li, 2019).

Concerns with AI

The more recurring and prominent issues that have been identified by researchers and companies who are utilizing AI in advertising are privacy, transparency, explainable AI, reliability, fairness, and bias (De Bruyn et al.,2020; IBM, 2021; Rai, 2020). Explainable AI has become a growing issue as it pertains to the rest of the concerns at some level. Not being able to explain how AI systems are functioning and making decisions leads to distrust (Rai, 2019). This distrust is not only from the targeted consumers of the advertising, but the clients of the agencies experience distrust in the technology as well. Additionally, many agencies shy away from the use of AI because they really do not understand how the AI functions and the agency does not trust the AI with certain processes (IBM, 2021). As researchers have pointed out, the complexity with which some algorithmic processes function and make their decisions is so high it turns the AI into an essential "black box" in which people blindly place trust in (De Bruyn et al., 2020; Rai 2019; Ribeiro et al., 2016). Ribeiro et al. (2016) found understanding how AI models have arrived at a prediction they have made is elemental in establishing confidence in a model. Attempting to understand and explain the decisions made by an AI model can prove to be difficult because sometimes even the developer themselves may not be able to detect why a decision has been made within a model (Rai, 2019).

The increased implementation of algorithmic processes has resulted in researchers investigating the occurrence of bias and fairness. They found at times the data contains bias that cannot easily be removed because of endogeneity in the data that was not

identified prior to implementation (De Bruyn et al., 2020). Embedded bias can occur if perhaps the previous data was not selected from random individuals and contained something that could lead to the model making a prediction based on data that was not fully realized or even perhaps dirty data. Bias and fairness are considerations when it comes to AI trying to understand intricacies such as gender. One study found that AI placed STEM ads were less likely to be shown to young women (Lambrecht and Tucker, 2019). The researchers found young women were not shown the ads because the AI model had been trained that young women are a high target for ads that would be more likely to result in profitable buying behavior and the ads were not meant to effect buying behavior but designed to alert people of a job opportunity. This resulted in women not seeing the ads for jobs in IT at the same rate men were being shown them (Lambrecht and Tucker, 2019).

Bias not only does damage to the consumers, but it also can lead to mistakes causing unnecessary issues for the advertisers and brands implementing the technology (Watts and Adriano, 2020). Brands have suffered because of advertisement placement. For example, in February 2022 Applebee's restaurant and CNN faced backlash over a bad advertisement placement (Bienasz and Mitchell, 2022). During coverage of the Russian invasion of Ukraine an Applebee's advertisement was shown in a picture in picture screen format next to footage of air raid sirens going off in Kyiv resulting in consumer backlash against Applebee's (2022). Watts and Adriano (2020) conducted a study that found AI models tend to struggle with placements and other biases because of lack of understanding semantic context. The researchers found humans are much more

likely to detect nuances in language than an AI model would be thus adding to concerns of reliability being an issue in the use of AI (Watts and Adriano, 2020).

Privacy and transparency continue to be an issue with the use of AI. As previously stated, knowing the source of data in order to safeguard or anticipate such consequences such as bias or dirty data affecting AI predictions is integral to the process (De Bruyn et al., 2020). Concerns among consumers about their own privacy and data are on the rise, and research into implications of the use of "big data" are continuing (Jurkiewicz, 2018; McDonald, 2018; Sneed, 2020). Not only is data gathering and use an issue regarding transparency, but the use of AI as a representation of a human has become a new concern in relation to transparency. While consumers may find an AI chatbot helpful in answering questions and avoiding long wait times, it is unclear if that same appreciation will be extended to AI influencers promoting products. These AI influencers are a culmination of algorithmic processes such as natural language processing, image and speech recognition and machine learning (Thomas and Fowler, 2021). Research has found the AI influencers are capable of committing similar transgressions as celebrity influencers such as making insulting remarks about another influencer resulting in an online conflict or using language a brand or audience would find inappropriate (Thomas and Fowler, 2021); this coupled with possible aversions to AI based on speciesism and skepticism (Wirtz et al., 2018; Schmitt, 2020) could lead to issues of trust in brands as well as affecting public perception of the use of AI.

AI Ethics

Ethics in the development and utilization of AI are important because of the potential impact the use of AI has on human life and society as a whole (Goldsmith and Burton, 2017; Martin, 2018). In business ethical considerations used to reduce harm and risks will contribute to the development of more sustainable businesses increasing their longevity (Coecklebergh, 2020). Many AI developers and companies fear ethical applications may hinder their work proving too constrictive or costly (2020). However, some companies that develop AI have been developing their own sets of ethical considerations (Coeckelbergh, 2020; Hagendorff, 2019). Unlike the advertising agencies wanting to let the lawyers buffer them (Drumwright and Murphy, 2004) many technology companies prefer to keep the guidelines in house rather than to look to legislators to create laws that may eventually hinder their business practices. Founded in the spirit of self-regulation, the organization Partnership on AI (PAI) connects companies using AI and researchers to inform the industry and the public about the efforts of applying AI in the best manner (Hagendorff, 2019).

Privacy and accountability fall into the top priorities of companies when it comes to creating guidelines for ethical AI practices (Hagendorff, 2019). This appears to correlate with the training advertising agencies provide to their employees (Schauster and Neill, 2017). Research commissioned by IBM (2021) states, "86% of global IT professionals strongly or somewhat agree that consumers are more likely to choose services of a company that offers transparency and an ethical framework on how its data and AI models are built, managed, and used" (IBM, 2021, p.7). The same study discusses the importance of developers being able to articulate how an AI model arrived at a

decision and how transparency is key to the business (2021). This leaves the dilemma of businesses that are using AI for their advertising needs to employ people that understand at least the very basics of machine learning and recent research suggests this is one of the largest barriers preventing customers from making the leap to employing AI in their current business practices (IBM, 2021). Hagendorff (2019) conducted an analysis on a compilation of 22 prevalent ethical guidelines derived from current literature accessed online and Algorithm Watch's AI Ethics Guidelines Global Inventory. He found the current guidelines do not cause any notable influence on decision making in development because of the lack of consequence reinforcement.

Attempts to apply trust to the use of AI have been made by simply asserting the AI models are trustworthy. However, it has been argued that AI cannot be held accountable to the attributes of human emotions such as trust and confidence because "it is an intelligence that is differentiated from natural intelligence…it is a machine intelligence" (Ryan, 2020, p.2751). Instead, one should be able to place reliance on the functions of the machines, but the trust should be put into the humans developing and employing the actions of the AI (2020).

There are a few organizations that assist the digital advertising industry in creating guidelines and maintaining ethical practices. However, membership in these organizations is purely voluntary and can be costly. Two of the organizations with large memberships and recognition are the Interactive Advertising Bureau (IAB) and the Network Advertising Initiative (NAI). The IAB consists of two factions, a trade group and the IAB Tech Lab. (IAB, *n.d.*) Their stated purpose includes digital advertising education aimed at their brand members as well as collaboration between the members

and Tech Lab to research and develop standards and good practices in the digital advertising industry (IAB, *n.d.)*. The (NAI) also helps to develop industry standards, though its membership is only for companies that offer third-party advertising services, therefore all of their work deals with the practice of data collection and how the data is utilized online (NAI, 2022). The NAI offers a code of conduct that it asks it members to adhere to as well as offers opt out information online to the consumers (2022). While these organizations are helpful it is still necessary for the companies offering AI advertising services to act in order to ensure consumer and client protections are considerations when it comes to the use of AI.

Why Virtue Ethics

Virtue ethics, a theory developed by Aristotle, focuses on the character traits that an individual "ought" to be building in themselves in order to make ethical decisions (Geirsson and Holmgren, 2018). Aristotle believed the most effective way to reach the state of one's life being good was to build, through experience and time, character traits within individuals that would lead to the right and moral decisions to be made (Aristotle, 2009). The ancient philosopher believed there were two categories of virtue, intellectual and moral. Intellectual virtue is gained by learning through experience and time. Moral virtues come from the habit of practicing virtue. One must use these two sets of virtues to rationally find the right action. He identified the place between excess and defect in which one may find the moral action calling it the "doctrine of the mean." Geirsson and Holmgren (2018) explain:

> To exercise a moral virtue, we must find the mean between the two extremes of
> defect and excess. For example, courage is the mean between cowardice and

rashness, and justice is the mean between suffering injustice and doing injustice. There are no rules or formulas for finding the mean, and we cannot determine where the mean is to be found independent of the circumstances in which it occurs. Judgement is indispensable, and particle wisdom enables us to judge correctly (pg.323).

The last part of that statement is especially important in the argument for the use of virtue ethics in AI development and implementation. The simple fact that advertising is applied to diverse audiences in a variety of cultures indicates the need for an ethical framework that can be flexible in its decision making. One rule that could apply within one culture may not apply in another therefore it would be up to the developers and advertising practitioners to embrace cultivating virtuous characteristics within themselves as individuals to make proper decisions for the communities in which they are acting.

In the last twenty years some ethicists have begun to champion applied virtue ethics in business (Whetstone, 2001) and more specifically in AI (Neubert and Montanez, 2019; Vallor, 2016) as well as advertising (Baker, 2008). Whetstone lays out four reasons using virtue in business is beneficial: virtue focuses on the individual, their actions, the content of their actions, and can complement other areas concerning human behavior (2001). Vallor (2016) outlines several ways emerging technologies are beginning to change the way humans live which lines up with the early technological determinist thinking. Yet in more recent times scholars have begun to look at the conflicts of technologies as individual entities rather than the metanarrative of human vs machines. Vallor believes this turn of thinking strengthens the argument for applied virtue as an ethical framework in the use of

technology because of the need for a "maximum flexibility" (2016, p. 32) due to the diverse nature of the different technologies and their issues. In their article *Virtue as a framework for the design and use of artificial intelligence* Neubert and Montanez demonstrate how virtue could have been applied to address an issue Google had with AI and gender bias. Using six virtues: prudence, temperance, justice, courage, faith, and hope they demonstrate how each virtue can be used in the managerial decision making process in the development of AI to address the issue. For example, temperance and justice can be applied to counteract bias by using virtue to ask questions regarding diversity and transparency (Neubert and Montanez, 2019).

As for the use of applied ethics in advertising, Baker and Martinson (2001) developed the Tares Test for advertising as a framework of principles designed for applied ethics in advertising and public relations. The Tares Test, consisting of five parts, can be applied to advertising and public relations messaging in order to guide the messaging in an ethical manner. The test focuses only on the perspective and principles guiding the person encoding the message not the receiver includes truthfulness, social responsibility, authenticity, equity, and respect (Baker and Martinson, 2001). Later Baker (2008) identified and developed models for two archetypes that appear in the industries of advertising and public relations as the "Principled Advocate" and the "Pathological Partisan" (2008, p.241). Baker's models of the "Principled Advocate" and "Pathological Partisan" (2008, p.241) identify the two as oppositional archetypes that either habitually act with virtue (advocate) or vice (partisan) becoming the archetype. The "Principled Advocate" being the more appealing of the two regarding ethical practices and harm reduction. By applying virtue to the already existing principles of the Tares Test she

outlines how this could be more likely to produce a "principled advocate" rather than the archetype with the more detrimental characteristics the "pathological partisan" (Baker, 2008).

The advertising industry has undergone many changes in the last two decades regarding the way it functions and the ethical considerations guiding the practice. The emergence of digital media and the addition of technologies used in AI advertising have made it necessary for researchers to examine how the technologies are being considered by the companies that develop and implement those technologies and how they are conveying their efforts to the public. The nature of AI deems it necessary for the companies to acknowledge that responsible development and use of AI in advertising is a priority.

Chapter 3

Methodology

With the increasing use of and concern about AI in advertising it is important to investigate if companies that develop and provide AI advertising services are approaching the practice ethically and how they are communicating those efforts. The purpose of this current study is to determine if the messaging on the websites of organizations providing AI advertising services reflect the traits of virtue ethics.

Research Questions

The question guiding the analysis conducted in this research is: How, if at all, are companies that develop and sell AI advertising platforms communicating on their websites that they incorporate virtue ethics regarding their technology?

Sub questions:

1. How many of the organizations have staff positions specifically relating to ethics?

2. Is information about the company ethical policy present on the site?

3. Do any of the companies list membership to IAB, NAI, or other organizations relating to good practices in advertising?

4. Do any of the companies have indicators of the character traits of virtue ethics in their messaging?

5. If companies do have indicators of virtue ethics traits, what traits are the most common?

6. Is there messaging present indicating the company is addressing recent
   concerns in AI advertising such as data use, privacy, bias, reliability, model
   explainabilty, and problematic content?

The researcher used content analysis because of the flexibility it allows in providing both
a qualitative analysis of the content as well as a quantitative analysis via a coding scheme
(Neuendorf, 2017). Content analysis is a research methodology used to qualitatively
analyze content for the presence of certain words or themes in text using categorized
codes which can then be measured quantitatively (Neuendorf, 2017; Columbia.edu, *n.d.)*.
Both the advertising and AI technology industries are often proprietary in nature;
therefore, the researcher employed a content analysis of websites as that platform would
contain consumer and client facing messaging. Websites can be easily accessible
locations to find information on a company and provide readily available data that one
can view as well as a representation of the company without the interjection of bias one
might get from directly questioning an employee (Drumwright and Murphy, 2009; Kim
and Kuljis, 2010).

To determine which websites to analyze the researcher performed a Google
search using the terms "AI advertising" resulting in 4, 2000,000,000 entries and "AI
Advertising Companies" resulting in 347,000,000 entries. In the results of the first page
of the inquiries the researcher found three articles about AI advertising companies
(Kaput, 2021; Koidan, 2021; Schroer, 2021) and a website dedicated to AI startups that
listed many AI advertising companies (ai-startups.org, 2022). Google search algorithm
results are based on several factors the algorithm weighs such as relevance, the page

design usability, current content, and the level of source expertise (google.com, *n.d.*). The researcher recorded all of the companies chronicled on the four sites and chose thirteen companies to analyze. While selecting the companies the researcher took into consideration that each organization should develop and provide AI advertising platforms. If a company appeared on one or more of the lists, as did IBM Watson and GumGum, it was selected. The researcher also chose companies that made various types of AI advertising technology. For example, IBM Watson and Salesforce are companies that can provide entirely autonomous AI advertising campaigns whereas companies such as GumGum and Dstillery develop and provide platforms using AI that perform specific tasks within a campaign.

The researcher conducted a pilot study using three of the thirteen identified websites to test and refine the coding sheet. The three test companies were not included in the main study. During the pilot testing the researcher noted some of the companies had membership to ethical organizations listed on their websites most notably IAB and NAI. Therefore, the coding sheet was revised to include membership in either IAB, NAI, or another organization to be recorded only if the membership was listed on the company's site. An "Additional Notes" section was also added to the end of the coding sheet as the researcher realized through testing there may be a need to make notes on the content.

Once the companies were chosen a competent researcher familiar with the process of content analysis examined each website thoroughly, using the coding sheet. See Appendix A for the websites included in this study. One coding sheet was completed

for each site noting the answers to each question in group one and recording whether a

virtue ethics qualifier from the coding sheet was met. The coding sheet was only used to

record data on those pages that were affiliated or linked to the AI advertising companies'

sites or privacy policies.[1] The researcher utilized the indicators used to operationalize the

terms relating to virtue ethics to analyze the content of the websites for any mention of

issues surrounding AI use, any concerns such as privacy, bias, or problematic content and

any mention of ethical policies in place. Any content that needed specific explanation

such as how the technology works or any information that the researcher thought may

relate to the research question was noted on the sheet as "notes."

Coding Sheet

In order to address the research questions, the researcher developed a coding sheet

utilizing the terms associated with Baker's (2008) "Principled Advocate" combined with

elements that may indicate the presence of ethics concerning the use of AI. If the element

was present on the page, it was recorded one time as a "Y" (yes), "N" (no), or "NA" (not

applicable) unless the answer included a numerical answer or location such as "header,

footer, or body" The codes were split up into two groups. The first group consisted of

questions addressing whether or not and how the organization directly addresses ethics in

their messaging. The second group consisted of virtuous character traits as outlined by

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[1] It is necessary to note two of the companies are subsidiaries or branches of larger companies. Sizmek is owned by Amazon and Google Ads is owned by Google respectively. For the purpose of this research the Amazon and Google pages were not searched for ethical messaging outside of the of the pages that were related to the advertising pages unless the pages were linked.

Baker (2008) and variables relating to issues in AI advertising such as data, privacy, and bias correlating with those traits. See Appendix B for coding sheet.

In determining how to analyze the presence of virtue ethics it was first necessary to identify characteristics that would indicate virtue. Baker's (2008) detailed description of the "principled advocate" (p.241) outlines a list of traits that indicate a virtuous character: " humility (acknowledges one's moral responsibility), truth, transparency (openness), respect (for other's right to self-determination), care (for others), authenticity, equity, social responsibility" (p.241). The researcher used these traits as identifiers of virtue ethics either through the presence of the trait, a correlating term, or through the presence of factors used to operationalize each trait. The identifiers were chosen based on the definitions of the traits and how they may be indicative of the presence of the corresponding virtue. The following table is a description of each trait relating to virtue ethics identified in Baker's description of the "principled advocate" as well as the correlating terms and factors that were considered in qualifying aspects of the content of the websites.

Table 1

Definitions and Operationalization of Traits

Trait and Correlating Terms	Definition	Operationalization
Humility	Acknowledgement of moral responsibility	Trait, performance analytical data available
Social Responsibility	Impact on clients, consumers, society	Trait, addresses problematic content, audit of tech concerning bias or other cultural effects, addresses consumer privacy
Truth (verify, candor, honesty, accuracy)	Acknowledgement of attempt to address issues	Trait terms, data from audit process available
Transparency	Willing to provide information	Trait, explanation of audit, explanation of technology, clarity of explanation, identifies type of data used
Respect	Consideration of client and consumer sovereignty	Trait, mention of client protections, consumer protection
Care (safekeeping, protection, awareness, guidance)	Willingness to aid in ethical concerns	Trait, terms, place to file ethics complaint, ease of process filing complaint
Authenticity (reliable, dependable, legitimate, valid)	Acknowledgement of ethical AI use	Trait or terms
Equity (honesty, integrity)	Acknowledgement ownership of values	Trait or terms

Once the researcher collected the data, she entered it into an Excel spreadsheet in order to organize and calculate the final results. Sub questions 1-3 were answered by calculating the percentage of total "yes" answers to the indicators of direct ethical messaging from group 1. To answer sub question 4 the percentage of "yes" answers of each company were tallied to determine the percentage of traits from group 2 were met. The percentage of "yes" answers for each trait were then calculated to answer sub question 5. Sub question 6, was answered by calculating the percentage of "yes" answers to each of the indicators used to operationalize the traits.

Chapter 4
Results

A content analysis was conducted on the websites of ten companies that develop and sell AI for use in advertising. The overall question guiding the analysis is: How, if at all, are companies that develop and sell AI advertising platforms communicating on their websites that they incorporate virtue ethics regarding their technology? The results show that the websites contained various results indicating the presence of virtue ethics in their messaging but ultimately 80% of the websites had a low occurrence of virtue ethics.

Coding Group One

The first group of questions were developed to help determine whether or not the company directly addresses ethics on their website and if so, how it is addressed?

<u>Sub Question 1: How many of the organizations have staff specifically relating to ethics?</u>

Very few of the organizations have an ethics staff that can be easily found on their website. According to the data, of the ten companies 2 out of 10 of the organizations (20%) employ an ethics board (See Figure 1.) IBM Watson and Salesforce both have ethics staff. It should be noted that these two companies are the only two organizations with an ethics page present on their website. Despite some of the companies having an ethics board, none of the websites analyzed had contact information available for any ethics staff members (See Figure 1). The researcher also examined staff bios, if present, the staff bios for each website were carefully examined for mentions of "ethics." Only

one employee at one organization had IBM Watson "ethics" mentioned in their bio or position title.

Figure 1

Percentages of Indicators Met for Direct Ethical Messaging
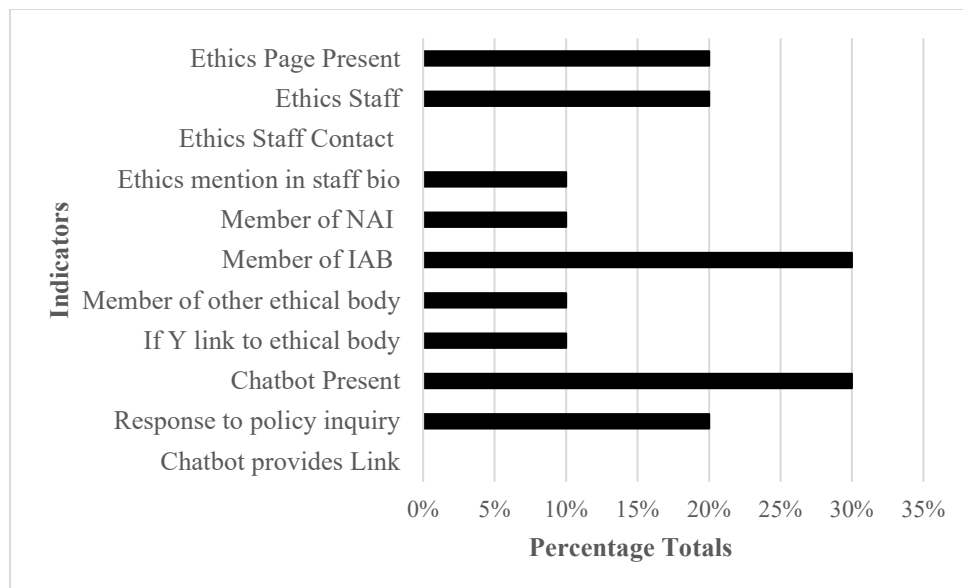
<u>Sub Research Question 2: Is Information about the company ethical policy present on the site?</u>

Finding information about each organization's ethics policy produced mixed results. For example, of the 2 of 10 sites (20%) with a dedicated page to ethics both were accessible in less than three clicks. IBM Watson's ethics page could be accessed via two methods: 1. through a link in the navigation bar under the "Learn more" drop down menu and 2. was located in the body copy on the IBM Watson homepage once a user scrolls down to the section on trust. Salesforce's ethics page could be accessed from the top

navigation bar under the "Company" tab which included multiple things the consumer could click on that could be connected to ethics such as "ethical and humane use, trust, equality, and philanthropy." Affectivia's website did not have a dedicated ethics page but did have information on a page that could be accessed from the top navigation bar under the "Careers" tab. Once a user follows that link and scrolls down there is a section "What we stand for." This section includes a statement about their ethical standards regarding AI development and deployment.

Chatbots appeared on 3 websites, Quantcast, Salesforce, and IBM Watson accounting for the 30% (See Figure 1) of the organizations. However, the chatbots were limited in their functionality. All three of the chatbots were programmed to direct visitors to sales. IBM Watson's chatbot and Salesforce's chatbot did offer an option for product support. Quantcast pushed consumers to answer a question about cookies, and the gave visitors the option to select "just researching."

Trying to ask the chatbots if there was an ethics policy proved difficult. Quantcast's chatbot does not allow the user to enter a customized inquiry so the question could not be asked for that chatbot. To receive a response from the chatbot on IBM Watson's page, the user had to select that they had a sales inquiry, then they were connected to an entity with a human sounding name to address the request and provide a link to the ethical policy. Salesforce's chatbot relayed it did not understand the question and offered to redirect to a salesperson.

Sub Question 3: Do any of the companies list membership to IAB, NAI, or other organizations relating to good practices in advertising?

Of the ten websites analyzed, 3 (30%) of the sites had their membership in an outside ethical committee listed on the website (See Figure 1). GumGum acknowledges membership status in IAB, NAI, Trustworthy Accountability Group (TAG), and The Coalition for Better Ads. Albert AI lists their membership in the IAB. Quantcast states membership in IAB as well as active members of IAB Tech Lab and Project Rearc, indicating they are involved in the research, as well as World Wide Web Consortium (W3C) a group that sets html standards domestically and internationally. [2] As stated previously membership to an organization was only recorded if it was listed on the company's site. The company may well be members of an organization yet do not convey that information on their site. The scope of this research only pertains to how the companies are communicating via their own sites.

Coding Group Two

Coding group two are a set of character traits as outlined by Baker (2008) and correlating elements signifying the presence of virtue ethics.

Sub Question 4: Do any of the companies have indicators of the character traits of virtue ethics in their messaging?

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[2] Though the data collected was limited to what information was provided on each organization's website the researcher did visit the links to the "other" outside institutions listed on the site to gather information about each site. The links for those sites are: https://www.betterads.org/about/, https://www.tagtoday.net/aboutus/, and https://www.w3.org/

According to the data (See Figure 2) all of the companies had varying levels of messaging indicative of the presence of virtue ethics. The results were calculated by how many of the traits and their correlating elements each website met. Salesforce had the highest rate with 18 out of 20 (90%) "yes" answers signifying their website contained the greatest indicators of virtue ethics in its messaging. Google Ads and Albert AI had the least amount with 2 out of 20 (10%) "yes" answers denoting the smallest number of indicators of virtue ethics in its messaging. The other companies from greatest to least percentages of "yes" answers out of 20 were: IBM Watson 15 (75%), Quantcast 7 (35%), GumGum 6 (30%), Affectivia and Sizmek 5 (25%), Dstillery and Cognitive 4 (20%).

Figure 2

Percentage of Traits Met by Company
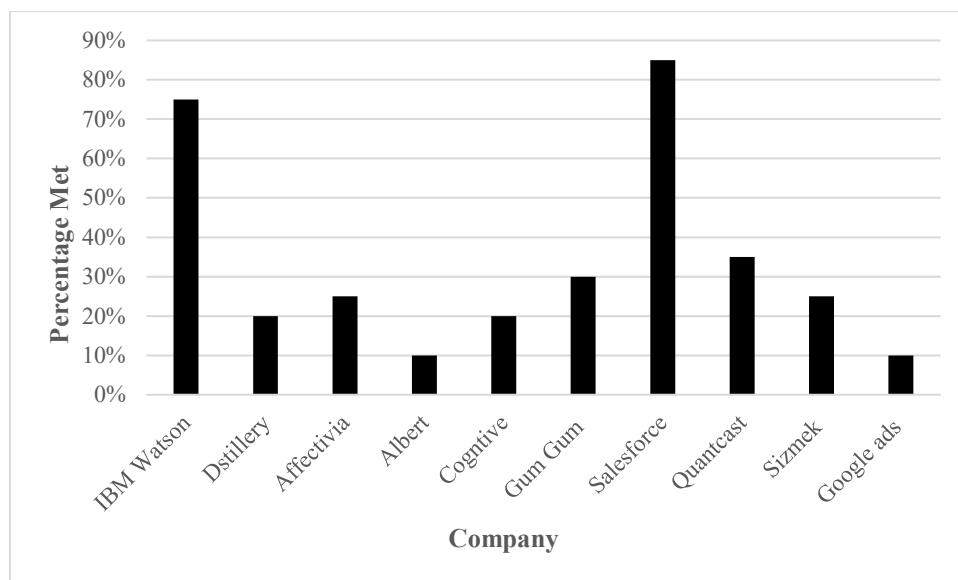
**Sub Question 5:What traits are the most common?**

The trait that received the greatest amount of "yes" answers is transparency (See Figure 3). The term itself or a qualifier was found on 10 (100%) of the 10 company websites. An explanation of the technology was utilized as one of the elements used to operationalize the virtue character trait of transparency. This qualifier contributed to the high percentage of transparency as it received the highest amount of "yes" answers. Of the 10 companies all of them (100%) had some sort of attempt to explain the technology. For example, Affectivia uses AI to provide performance analytics of an advertisement by scanning a consumer's face to detect emotion based on facial expressive factors such as brow movement. The company addressed this with a demonstration video of the technology in action and including an explanation of what their deep learning model is looking for.

Respect was second in line of "yes" answers with 5 (50%) of the companies addressing consumer and client protections. Social responsibility was apparent in the messaging on 4 (40%) of the websites. Mentions of consumer privacy, an indicator for social responsibility, were present on 4 (40%) of the websites. The AI having the capabilities to perform an internal audit for bias and effects was also utilized as a qualifier for the trait of social responsibility. IBM Watson and Salesforce's Einstein both have built in features that can audit the AI and give the users analytical insight as to why the decisions being made by the AI are being made. IBM Watson also offers access to opensource toolkits such as the AI Fairness, AI Privacy, and AI Explainabilty 360 designed specifically to help recognize and diminish bias in AI deep learning models.

Truth was met by 4 (40%) of the companies. Cognitiv and Sizmek, two companies that scored low overall in the total percentages of traits met by a company, both included the term "truth" on their website. The other traits, shown in Figure 3, all scoring lower than 40% "yes" answers are: care and equity at 3 (30%) and humility and authenticity at 2 (20%). Of the three companies that indicated care as a trait 2 of them included the term and 1 of them met the indicator of having a place to file an ethics complaint. Equity and authenticity both were only counted if the terms themselves were present. Humility was met by 2 (20%) of the companies, each having performance analytical data available.

**Figure 3**

Traits Met by Percentage
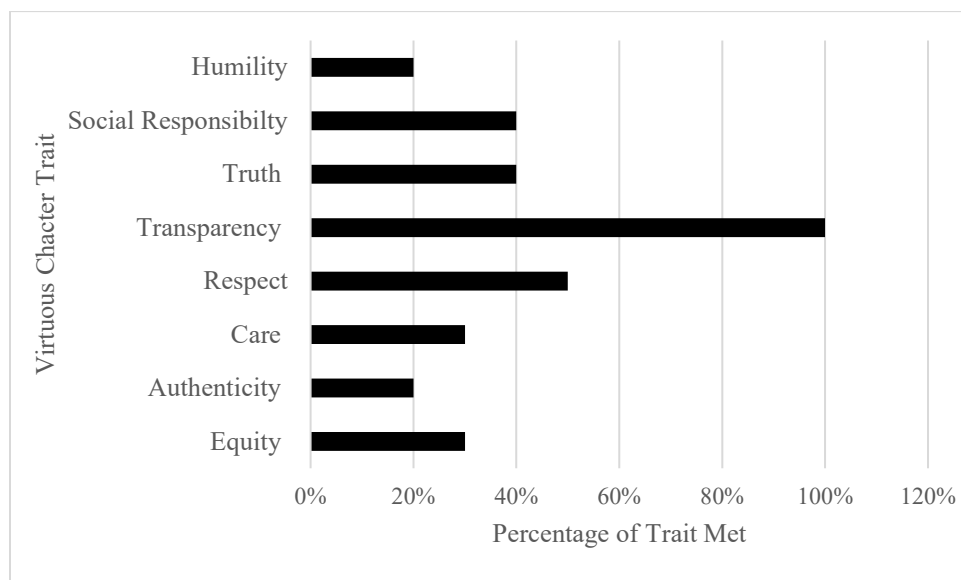
Sub Question 6: Is there messaging present indicating the company is addressing recent concerns in AI advertising such data use, privacy, bias, reliability, model explainabilty, and problematic content?

Scholars have identified areas of concern occurring in the use of AI such as data use and privacy (Jurkiewicz, 2018; McDonald, 2018; Miltgen et al.,2019), bias (Lambrecht and Tucker 2019; Watts and Adriano, 2020), reliability (De Bruyn et al., 2020), model explainabilty (De Bruyn et al., 2020; Rai, 2020), and problematic content (Thomas and Fowler, 2021; Watts and Adriano, 2020). In order to answer this question, data that could indicate attention to these concerns from the character trait qualifying section of the coding sheet were analyzed to determine if any of these concerns were addressed on the websites. The data shows (See Figure 4) an explanation of the way the technology works was addressed by 10 (100%) of the companies and 5 (50%) of the companies identified the type of data used in their platforms. To be clear the explanation of how the technology works would address areas of concern such as privacy and data use but would not address model explainabilty concerns in AI . Explainabilty in AI is a concern relating to how the AI is functioning and making decisions (Rai, 2020). As discussed previously 2 (20%) of the companies state their AI have the capabilities of performing an audit to detect bias and/or effects in their use as well as an explanation of the audit process and analytical data from the audit available to the user. Consumer privacy was mentioned by 4 (40%) of the companies, 5 (50%) mention consumer protection, and 2 (20%) mention client protections. Performance data availability was utilized as a reliability indicator with 2 (20%) of the companies providing access to that

information in some form. None of the companies met the indicator for problematic content.

Figure 4

Indicators of Shown Concerns in the Use of AI in advertising
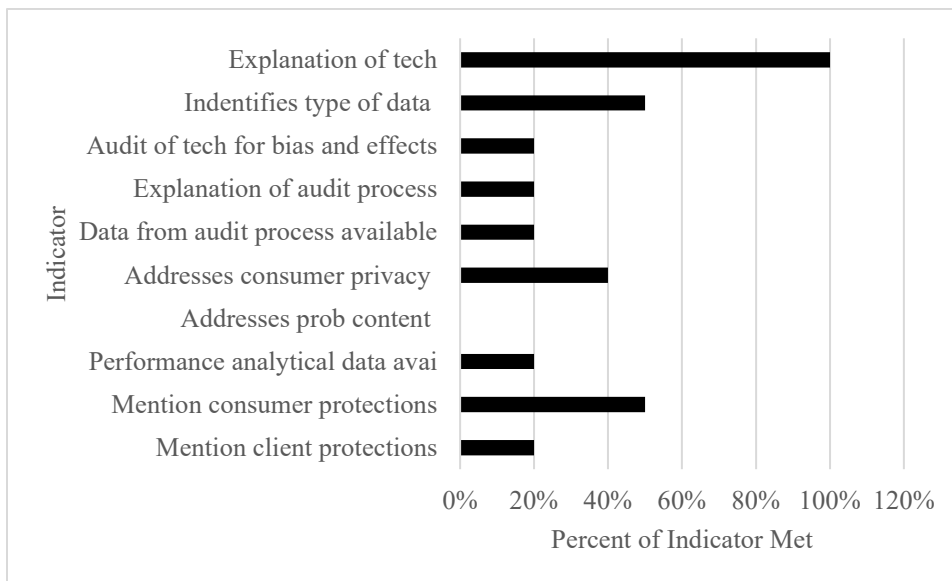
Chapter 5

Discussion

The purpose of this study was to determine if and how virtue ethics is reflected in the messaging on the websites of 10 companies that provide AI advertising services. The results show there is the presence of virtue ethics in the messaging of varying degrees on each website. This could be a result of the different sizes of the companies, or the types of technology used, but also demonstrates there is no cohesive standard of the level of ethical considerations throughout the industry of AI advertising. The companies demonstrating the highest results of virtue traits in their messaging were Salesforce 90% and IBM Watson 75%. This is likely due to both companies having departments dedicated to ethical considerations. Employing an ethics department can keep the need for ethical considerations a priority as well as emphasize the need to convey the efforts of those considerations through public facing messaging. The remaining websites analyzed fell 35% or below in indicators showing 80% of the companies have a low occurrence of virtue ethics in their messaging. With the addition of AI as an advertising tool, there has been progress in comparison to results in previous studies though the number of companies showing high levels of messaging is low revealing there is more that could be done.

The first group of questions examined if the companies addressed ethics directly on their websites. Two of the companies employ staff whose job specifically addresses ethics, this is a change from the information discussed in previous studies which revealed the presence of moral myopia and moral muteness in the advertising industry (Drumwright and Murphy, 2004). In their study Drumwright and Murphy (2004) noted

there was an attempt of agencies to cultivate an ethical culture among some of the smaller agencies, but the larger companies and corporations were more likely to not address ethics at all. The results from this current study found some progress in that two large companies have people employed to discuss and cultivate ethical practices indicating the moral myopia appears to be less prevalent as the companies seem to acknowledge the necessity to at least address ethics. Considering the current discontent surrounding data use and privacy it isn't surprising some of the larger companies are moving toward the appearance of taking ethical practices in AI advertising seriously. Companies like IBM Watson and Salesforce are aware consumers and brands will want some assurance their concerns are being addressed. However, this was not true of all the larger companies in this study as two of the companies that were either subsidiaries or branches of industry giants, Sizmek (Amazon) and Google Ads (Google), did not have links from their pages dedicated to addressing ethics in AI advertising. Though Google does have an ethics board in the last few years there has been conflict and controversy surrounding the treatment of researchers on that board. Google fired a well-known researcher for her work on the problematic uses of large data sets. This dispute may be a reason Google is shying away from front facing ethics messaging as it has been attached to their controversial decisions. Also of note, many of the links on the Google Ads website connected to pages that required a Google account be signed in. It would appear that Google is more interested in tracking a user on their site than having the information readily available. Google's tracking attempts could signal to the user they are not interested in ethical considerations as tracking and data use are a hotly discussed topic in the discourse surrounding the use of AI in advertising. Two of the larger companies

scoring low were Sizmek and Google Ads. Sizmek is now owned by Amazon making it part of a huge corporation. The reason Salesforce and IBM Watson were more likely to have accessible ethical messaging in comparison to the other large companies is they may fear lawsuits whereas Google and Amazon may be less likely to fear lawsuits. Companies the size of Amazon and Google have the insulation of large legal teams and departments protecting them and are not primarily reliant on the revenue from their advertising divisions. In comparison companies the size of IBM Watson and Salesforce will have less insulation, have more stake in their advertising divisions, and are still large enough to be targeted.

IBM Watson and Salesforce had ethical policies available on their websites and Affectivia had a statement about their ethical standards. These policies were accessible in less than 3 clicks from the homepage. This is an improvement from Drumwright and Murphy's (2009) study in which they reported information about ethics on the websites they analyzed was 6-18 clicks away from the homepage. Quantcast, GumGum, and Albert AI had their membership status to organizations such as IAB, and NAI listed on their sites. These findings indicate some of the companies are no longer hesitant to speak up about ethics as well as an indication that the advertising industry is attempting to curb the "Wild West" (Drumwright and Murphy, 2009) mentality concerning guidelines that reportedly occurred in the early days of digital media and its emerging technologies. This waning hesitancy to speak up is likely in direct response to calls for regulation being enacted to address issues of concern. Self-regulation will present better than no regulation at all. The Drumwright and Murphy (2009) study also reported the data from their analysis of 25 advertising agency websites showed a low occurrence of ethical messaging

on the websites. Of the 25 agency websites they analyzed 10 (40%) of them had no

messaging regarding ethics present (Drumwright and Murphy, 2009). In comparison of

the 10 websites that were analyzed in this current study all of them met at least one

indicator of messaging relative to virtue ethics. This is progress though the number of

websites meeting a high level of messaging was low overall indicating there is still a need

for AI advertising better communicate their ethics on their websites. This result may also

be affected by the type of AI each company utilizes. The lower occurrences of messaging

on websites of companies that use a specific type of tech meant to be added to a tech

stack may indicate the smaller companies do not regard any of their technologies to have

ethical concerns attached. These smaller companies develop AI intended to be used in

conjunction with larger platforms such as Google Ads perhaps pointing to a reliance on

those larger companies to address any issues of concerns. They may also regard the need

for regulation to be handled by the advertising practitioners.

The second group of questions were designed to determine if the messaging on

the websites correlated with the virtuous character traits from Baker's model of the

"Principled Advocate" (2008, p. 241). This was accomplished by searching for the traits:

humility, social responsibility, truth, transparency, respect, care, authenticity, and equity

either directly or the indicators that were used to operationalize them. The indicators were

also representative of some of the common issues in AI advertising.

Of the traits explored in this study the most common traits reflected on the

websites were transparency and humility. Transparency was present on 10 (100%) of the

websites in this study. This result is not surprising as transparency is one of the most

common concerns in the use of AI in advertising as it usually relates to the use of data

and privacy (Jurkiewicz, 2019; McDonald, 2018; Sneed, 2020). Transparency has

become a buzzword of the times as many companies have heard calls for transparency in

their actions. Of the 10 (100%) of the websites reflecting transparency all 10 also

attempted to explain their technology. These attempts varied in method and clarity. For

example, IBM Watson and Salesforce provided thorough explanations of how their

technology worked and had descriptions of how different features worked, and Salesforce

emphasized their initiative to train new users. Dstillery's explanation was written in

highly technical terms but would be clear for those are at a more advanced level of

technology. Cognitiv identified their use of a neural network system but focused more on

explaining how deep learning works not specifics about their own technology. GumGum

reiterates their commitment to privacy and responsible data use through their application

of cognitive behavioral targeting by scanning of text and images. This information was

scattered throughout their page more as a sales pitch and not gathered in a location

dedicated to specific information about the technology. As discussed before, Affectivia

had a demonstration video available, and the others had very brief explanations or no

explanation at all. The lack of clarity and cohesive messaging regarding the technologies

could indicate the companies were not genuine but rather simply ticking boxes. This

could cause the public to perceive the companies are being disingenuous resulting in a

loss of trust in the advertising industries as well in result in more unintended

consequences in the use of AI. Commercial websites are going to contain messaging

designed to help sell the product the company is offering. Interestingly examining the

content of these websites that are designed to sell products that sell products provided

compelling insight. The lack of clarity and consistency in the attempts to convey these messages as well as connect with the consumers of the advertising products indicates there is still a communication gap between the developers and the practitioners.

The indicator for respect that was met with the highest percentage was mentioning consumer protections. Half of the websites analyzed addressed consumer protections on their site, but again like transparency there was very little clarification of exactly how consumers are protected in the use of their technology. The researcher noted many of the companies used explanations such as data prospecting, using live data, and human character traits like trust being built into their systems, or putting humans before AI yet none of those companies directly address how those processes or statements really protected the consumer. IBM Watson does offer open source toolkits, AI Fairness 360 and AI Privacy 360 in order to help address consumer protections relating to privacy and bias. These toolkits are supposed to be capable of identifying and addressing issues in the use of AI models to further reduce unintentional consequences that may affect the consumer or the client branding.

The traits social responsibility and truth were both met by 4 (40%) of the companies. One of the indicators for social responsibility was if the company identified an audit process to detect things such as bias or other unintended effects available for the AI they use. In relation an indicator for truth was the availability of the information from that audit to the client. These indicators address the issue of the need for explainable AI models and how they make decisions (De Bruyn et al., 2020; Rai, 2020).

Explainable AI can help understand and rectify issues such as bias and reliability (De Bruyn et al., 2020, Lambrecht and Tucker, 2019). Salesforce's website identifies and explains their built-in feature Einstein Discovery Story that performs audits on their AI models and provides data insights to the client about why the AI model is making decisions. They acknowledge the issue of the client not necessarily having the technical experience to benefit from the feature by providing training to ensure the feature is beneficial to the client. IBM Watson offers an open source toolkit called AI Explainabilty 360 which clients can use to understand how AI models are making decisions. There are several resources available to assist in the use of the toolkit including basic terminology definitions, tutorials, web demonstrations, videos, and a Slack channel available to ask questions.

By providing the information on their websites about their attempts to reduce effects that can result in the use of "black box" technologies (De Bruyn et al., 2020, Rai, 2019; Ribeiro et al., 2016) they are acknowledging the issues are present and considerations are being taken. As with previous findings, the inclusion of this information on their websites is a departure from both of the Drumwright and Murphy studies (2004, 2009). The avoidance of discussing ethics with clients due to fear of calling attention to concerns related to advertising seems to be waning, at least for these two companies. On the surface all of these resources seem to be going in the right direction of responsible use of AI in advertising. One concern of note is clients of these companies still will have issues employing advertising practitioners that are familiar enough with the technology to implement them in ethical ways. The training resources provided by the AI advertising companies may put too much of the responsibility of

monitoring and maintaining ethical practices of AI after launch than just doing the research and work necessary to develop ethical AI. Creating a balance of responsibility between the two industries should be key for both sides.

Unfortunately, the indicator scoring lowest for the trait of social responsibility was mentioning problematic content. None of the companies directly addressed problematic content as an issue that should be considered. Some of the companies, such as Sizmek and Google Ads, included long lists of prohibited content while others provided brief descriptions of content not allowed in ads. These were all buried in lengthy Terms of Service agreements accessed via the fine print located in the footer of the homepages. Again, this is more indicative of an attempt to provide blanket cover for any future lawsuits in order to cover prohibited advertising practices, but not an effort to address problematic content that could potentially harm brands and consumers. Affectivia and Dstillery are the exceptions to this as their services do not include responsibility on their part for content.

Care scored low as only 3 (30%) of the companies either had the trait on the website or the indicator of providing a place to file an ethics complaint. Both IBM Watson and GumGum had the trait care or a corresponding term present on their websites and Salesforce provided a place to file an ethical complaint. The process to file a complaint seemed relatively easy as one could either call a toll-free phone number or fill out a form online with an option to remain anonymous. The site to file the complaint is linked to an offsite page belonging to EthicsPoint Inc. which clearly states that EthicsPoint has their own servers and are not part of Salesforce. This finding was

especially interesting in that in Drumwright and Murphy's (2009) content analysis of advertising agency websites they also only found one page offering a way to file an ethical concern either by phone or email. It would seem if the companies were actually interested in the consumer and client concerns there would be more proactive efforts in providing ways the concerns could be addressed directly.

Humility also scored very low with only 2 (20%) of the companies meeting the indicator or having performance data available. A few of the websites included some partial data available in the form of success stories, but only IBM Watson and Quantcast met the indicator with case studies with analytics included. This finding would indicate a greater need for information concerning reliability in each of these companies technologies. These results were unsurprising in that it is not a common occurrence to find humility in advertising as messaging will be more likely to include success stories and not failures or weakness in the product.

To qualify as having the traits equity and authenticity the traits themselves or the corresponding terms had to be present on the website. IBM Watson and Salesforce had both traits or terms on their sites at least once and Quantcast had the trait equity on its site. These findings were significant as the absence of authenticity and equity in the messaging may indicate to clients and consumers any attempts to take ethical considerations in a virtuous manner are merely a performance and they are not to be trusted.

The fact that all of the websites analyzed in this study had some messaging that related to virtue ethics shows there is progress being made, however the progress is slow

going and could be more extensive. Communication between practitioners and developers currently is of utmost importance and they need to work together to create and maintain ethical practices regarding AI in advertising. The practitioners need to have a better understanding of how the technology works and the developers need to have a better understanding of the possible unintended consequences of unethical advertising. This understanding can only be reached through cooperation and a shared ethical base. Communication between the two can only serve to strengthen the knowledge and efforts of both sides, in turn providing ethical AI advertising practices protecting both brand and consumer. Although, the way companies that develop and provide AI advertising services communicate their ethical values to the public is better than their predecessors in the industry the overall results indicate there is much to be done. Companies seem to realize the need to acknowledge and address ethical uses of AI in advertising but are unable, or unwilling, to accomplish that in a sufficient manner. Developers and practitioners working together to cultivate ethical cultures within their organizations by applying virtue ethics to their own actions not only generate and maintain trust in the consumers and brands, but also serve to create an ethical foundation that will grow with the organizations and the technology.

Limitations and Recommendations

Due to the evolving nature of technology the way it is utilized in AI advertising is constantly changing. There are many AI advertising companies that offer a plethora of different types of AI models and services that could not be included in this study. Therefore, due to the sample size, this study may not be indicative of the results that

would be found if many more websites had been included and the results are not generalizable. Additionally, there are more traits that could be considered as virtuous that could be applied but were not included as they were outside of the scope of the Baker (2008) model used. The researcher chose to only look for virtue ethics in this study as the focus of this study was on human character traits.

Future research should expand the sample size to include more companies and perhaps categorize and examine the groups by the type of AI model used. This could produce findings that may reveal if the type of AI model affects the ethical considerations. Additionally, a wider focused study on general applied ethics that included ruled based ethical principles as well may give clearer results on the general ethical considerations present and the solutions used to address them.

Conclusion

The intersection of advertising and technology has produced ways to reach audiences more effectively through the use of AI models made specifically for advertising (Li, 2019; Chen et al., 2019; Qin and Jiang. 2091). With this convergence of media and technology came a new set of concerns in media ethics. Ethical considerations in advertising changed from simply concerning messaging impacts (Pollay, 1987; Nwachukwu et al.,1997; Treise, 1994) and the way practitioners felt about the industry (Hunt and Chonko, 1987; Drumwright and Murphy, 2004) to considerations concerning the use of AI in advertising. Researchers are now examining concerns relative to AI in advertising such as data use and privacy (Jurkiewicz, 2018; Miltgen et al., 2019; Sneed, 2020), as well as explainabilty and bias (De Bruyn et al., 2020; Lambrecht and Tucker,

2019; Rai, 2020; Watts and Adriano, 2020). These are important considerations, but the researcher could not find any research examining how the companies that are developing and providing the AI advertising services are communicating their ethical values.

AI are machines, but are programmed by humans, and the use of the machines should be evaluated based on the values of the human creating and implementing them using an ethical framework that is human based such as virtue ethics (Vallor, 2016). Virtuous character traits present would convey the companies were cultivating a culture within their organizations that build virtuous character in the actors that are developing the AI models as well as those actors who are implementing the AI in advertising. Although this study found there is messaging relating to virtue ethics on some of the websites of AI companies, there is still more progress to be made. The results indicate the majority of the companies analyzed are lacking in ethical messaging concerning virtue. Companies that maintain internal cultures of virtue will be more likely to have organizations capable of ethically addressing present and future concerns in the constantly evolving field of AI advertising. As this evolution of technology continues protecting consumers and brands will depend on ensuring those responsible for development and implementation are acting with virtuous character.

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APPENDICES

Appendix A

COMPANY		WEBSITE
IBM WATSON		https://www.ibm.com/watson
DSTILLERY		https://dstillery.com/
AFFECTIVIA		https://www.affectiva.com
ALBERT AI		https://albert.ai/
COGNITIV		https://cognitiv.ai/
GUMGUM		https://gumgum.com/
SALESFORCE		https://www.salesforce.com/
QUANTCAST		https://www.quantcast.com/
SIZMEK		https://advertising.amazon.com/solutions/products/sizmek-ad-suite
GOOGLE AD		https://ads.google.com/home/#!/

Appendix B

THESIS CODING TEMPLATE

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1. **ETHICS MENTIONS**

    ☐ Ethics page present

    　☐ Header

    　☐ Footer

    　☐ Body Copy

    Number of Clicks to get to page:

    ☐ Ethics Staff

    ☐ Ethics staff contact

    ☐ Ethics mention in staff bio

    ☐ Member of Network Advertising Initiative (NAI)

    ☐ Member of Interactive Advertising Bureau (IAB)

    ☐ Member of other ethical committee of body

    Link:

2. **CHATBOT**

    ☐ Chatbot present

    ☐ Chatbot responds to ethics inquiry:

    Response:

    ☐ Chatbot provides link

    Link:

3. **MESSAGING**

    ☐ Humility – Term or acknowledgement of moral responsibility

☐ Performance analytical data available

☐ Social Responsibility-

    ☐ Addresses problematic content

    ☐ Audit of tech concerning bias or other cultural effects

    ☐ Addresses consumer privacy

    Notes:

☐ Truth (verify, candor, honesty, accuracy)

    ☐ Data from audit process available

☐ Transparency – Term or willingness to explain process

Explanation of process:

    ☐ Explanation of Tech

    Clarity of explanation:

☐ Identifies types of data used

        ☐ 1st party

        ☐ 2nd party

        ☐ 3rd party

☐ Respect- (consideration, thoughtful, attentive)

    ☐ Mention of client protections

    ☐ Mention of consumer protections

☐ Care- (safe keeping, protection, awareness, guidance)

    ☐ Place to file ethics complaint-

    Ease of complaint process:

☐ Authenticity- (reliable, dependable, legitimate, valid, trustworthy)

☐ Equity- (honesty, integrity)

ADDITIONAL NOTES: