

The Future of Advertising in Web3: AI, VR/AR and the metaverse

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Introduction

In many ways, organizations in society connect to their audience through mastering advertising techniques. These techniques range dramatically depending on the communication medium used. A communication medium can range from areas of psychological and emotional appeals, bandwagon techniques, endorsements, social proof, physical print media, and direct mail. Advertising is an extremely effective way for a brand to communicate with its audience. Whether it's to purchase a product, gain a follower, or distribute information, the format of advertising is strategic.

Organizations today are attempting to find new, innovative ways to utilize new technologies to their advertising advantage. This includes technology such as artificial intelligence (AI), augmented/virtual reality (AR/VR), and the future of the web (the metaverse/Web3). To successfully engage these new technologies, they must expand their target audience to innovators and early adopters of the new technological era. This expansion idea is consistent with marketing strategy and will be necessary for organizations to stay relevant. However, with ever-evolving technologies, new/updated governmental guidelines are necessary. This paper will propose a new privacy policy in law as it correlates to variables of privacy, freedom of speech, personal autonomy rights, and advertising laws concerning metaverse advertising between organizations and their stakeholders.

The concepts of AI, VR/AR, and the metaverse/Web3 will be discussed in depth to preface the current laws in place for digital advertising platforms. This background information is essential to ground the proposal of a future advertising policy. This policy must be enforced through government regulations rather than organizational self-regulation and social responsibility. Establishing historical tendencies of technological growth within society is

important to project the timeline of the metaverse and Web3 growth. Today, there is a blueprint for an AI Bill of Rights that establishes protection for U.S. citizens against discrimination, data privacy, and general personal protection against AI systems. Advertising will continue to use systems with AI developments that will overstep these boundaries of personal privacy, autonomy, and speech. Therefore, it is crucial to begin to enforce policy apart from organizational self-regulation to protect individual rights of privacy and autonomy regarding advertising. The best way to do so is to expand on what is already being established for law and digital technology with the Blueprint for an AI Bill of Rights.

Background

The internet today, also known as Web 2.0, is guided by user interaction and social media. As it was, Web 1.0 was the earliest form of the Internet and the first example of a technology that provided worldwide connectivity (O'Neill, 2022). The big difference between the two is the ability for user interaction. Web 2.0 extends the ability to read and gather the information that was previously shown in Web 1.0. This now allows users to provide information through social media and content creation (O'Neill, 2022). Web3 is expected to further this idea of user content manipulation to add a layer of ownership. Almost as if Web3 is a physical forum, users involved in this technology now can own a part of their data-building community through NFTs and other forms of financing (O'Neill, 2022). Web3 will be a combination of what is known in history as the World Wide Web and the future of an Artificial Intelligence-driven atmosphere.

The ownership of Web3 will extend into organizations as well. The metaverse, a virtual world experience that plays on physical and psychological feelings of reality and is a part of Web3, will have an impact on organizations and advertising budgets in the future (Garon, 2022).

After the year 2020, the push to digital advertising was quickly adjusted to the forefront because of the COVID-19 pandemic. During these years, consumers were mostly at home and spent much of their time online (Kaneko, 2022). Projected by the year 2030, McKinsey & Company expects the metaverse "to have a higher share of advertising placements and budgets as consumers spend more time each day in the metaverse, creating new metaverse advertisements such as virtual billboards" (Kaneko, 2022). The example of virtual billboards is one of many potential new advertising forms projected to exist in the metaverse, social media, and digital-audio advertising (i.e. TikTok).

The most popular platforms for advertising, TikTok and Instagram, are cheaper and quicker to disseminate information (Drumme, 2021). Among the first versions of advertising were print newspapers and shaky, 10-second TV commercials, yet today more than 6 billion people in the world have smartphones that deliver advertisements through many mediums (Drumme, 2021). The agenda-setting means of media has been regulated in areas for false, deceptive, or unfair advertising. This is made clear in the United States in Section 5 of the Federal Trade Commission (FTC) Act and Section 43(a) of the Lanham Act (Kaneko, 2022). However, concern is raised about the movement to Web3 and the transferability of these policies. Anyone with access to the internet can provide and spread information at their choosing. The ability for organizations or other news outlets to push product advertising is just the same. While advertising is a crucial component of franchising and overall brand awareness, regulations in the many forms of digital advertising may be overlooked (Kaneko, 2022).

Virtual/Augmented reality (VR/AR) is another form of Web3 to enhance organizational capitalization. VR/AR is an overlay of reality, relocating a user to the metaverse. The part of Web3 showcases the drawbacks for society and organizational advertising. The challenges of

VR/AR today pose legal questions in new ways that push the boundaries of freedom and legal protection. The line between physical and psychological harm is the reasoning behind the clarity issues in Web3 policy. While it is easy for an outsider to view VR/AR as a simple technology, the psychological impact it can have on a user is misunderstood and under-analyzed. In history, there has been a natural tendency for legislation to step in for problems that involve new technologies, yet, most often these interventions are deemed best to be left alone to solve on their own (Lemley & Volokh, 2018). However, leaving them alone allows space for damaging, illicit areas of society to roam without fear of legal repercussions. The uninformed and misunderstood factors of AR/VR in the realms of the metaverse and Web3 will give way for large corporations to take advantage of current media law and recklessly deface the average, everyday citizen.

Some predictions of marketing and advertising in Web3 stem from areas of gaming and VR, non-fungible tokens (NFTs), and other conceptualizations of finance and assets. By the year 2030, the Web3 industry is expected to grow to a market size of \$81 billion (MrNouman, 2023). Digital currencies are projected to be the leading demand in Web3, making all new crypto-related projects easily transferable to a Web3 atmosphere (Garon, 2022). This can also be interpreted as a projected marketing and advertising opportunity. Brands that expand into the Web3 trend will be required to understand the impact, protocols, and cost of Web3 advertising. This cost can be associated with the style of advertising used, such as metaverse billboards.

To conceptualize this idea, billboard advertising in the metaverse will be like that in the physical form. The visual imagery of the billboards will be shown through virtual entities, such as a VR headset or AR glasses. This style of advertising will be effective because of the ability to strategically place advertisements for the demographic targeted (Jakma, 2022). They have the potential to be immersive, interactive, and targeted for a higher ROI. Lastly, they are also

cheaper per capita, meaning the cost of a billboard in the metaverse and the traction it will receive will be much lower than that of a billboard rented in highly populated areas, such as New York City (Jakma, 2022; How Much Does a Billboard Cost, n.d.). The ability for this style of advertising and how consumer data must be collected to personalize the targeted advertisement they see is the leading question as society moves into the era of Web3.

Privacy, Property, and Advertising Law

When it comes to general privacy law, the explicit direction is important for clarity. This clarity guides individuals down a path to understand their full rights when signing up for a new program, in this case, a technology that functions in the metaverse. When an individual signs off their privacy for the use of new technology, they put their trust in that platform with a reasonable expectation of privacy. The reasonable expectation of privacy is a test that was established in the 1967 *Katz v. United States* Supreme Court case and serves as a foundation for Fourth Amendment reasoning (Wex Definitions Team, 2022). The Fourth Amendment serves as protection against "warrantless searches of places or seizures of persons or objects, in which they have a subjective expectation of privacy that is deemed reasonable" (Wex Definitions Team, 2022). Today, privacy rights are considerably conflicted when weighing physical property versus virtual existence side by side.

The transferability of privacy law to the idea of a person's physical places or objects (i.e., property) in the metaverse is unclear. What is considered physical property in a virtual realm? The legal definition of property is divided into two categories: real property and personal property (Zenor, 2021). As noted by Cornell Law School's Legal Information Institute, "Property is anything (items or attributes/tangible or intangible) that can be owned by a person or entity" (Wex Definitions Team, 2022). In this definition, any possessed property owned by an individual

is the complete ownership and right to something to which that owner can possess, use, transfer, or dispose of as they so choose (Wex Definitions Team, 2021; Zenor, 2021). However, the concept of personal property follows a more intangible basis. This means that the personal technology that an individual possesses (which might grant them access to the metaverse and their virtual property) cannot be protected under the same codes as that of personal or real property. Rather the mix of real property (e.g., Oculus Headset) is a separate entity from the personal property one can access through it (e.g., metaverse property, NFTs, Avatars, etc.). The combination of property and privacy laws in the metaverse may be a technicality that must be reviewed to better incorporate concepts of VR, AR, and other algorithmic programs in virtual advertising affordances.

Lastly, the FTC has a large, broken-down policy on advertising and marketing regulation. While the guiding point is to not lie or mislead consumers in advertising, the FTC has laid the substantial groundwork for protecting consumers' privacy online. Regulation is quantified under terms of notice, choice, access, and security for privacy security to protect consumers from targeted advertising practices (Federal Trade Commission, 2000). Basic advertising law is to keep access to content truthful, but there is no prohibited percentage to which advertising can intrude upon an individual's property in the metaverse. The access to Web3 in marketing and the FTC updates to online advertising are not enough to facilitate screening for online advertising in Web3 and not cross boundaries into the autonomy to which a person is owed in their personal space (i.e., what qualifies as their 'home').

Current Policy on Personal Data

To participate in VR-designed functions (i.e., VR headsets) users must provide their data. For example, Meta's VR expansion released the headset Oculus, which requires users to have a

personal Facebook account to access the full VR experience (Kim, 2022). This requirement fueled the fear of privacy intrusion. To what extent does this data begin to be mined for alternative uses by these tech companies that provide access to Web3? The current policy that exists today to protect users' data is the European Union's General Data Protection Regulation (GDPR). The GDPR is known as the most stringent and strongest privacy and security law in the world (Kim, 2022). This regulation both observes individual rights in the digital form, and "sanctions for those in breach of the rules" (The general data protection regulation, 2022). This means that organizations and businesses are obligated to administer appropriate security measures in their policy (The general data protection regulation, 2022). This policy, however, is only fully recognized in the European Union member states.

The current criticisms of the GDPR are the unclear standards set for gaining users' consent to collect their data (Kim, 2022). Today, data consent is given easily through a checkbox after reading an otherwise lengthy privacy policy. The understanding of this consent drives the need for less ambiguity in privacy policy both with the GDPR and other forms of data protection regulations. Today, virtual reality accessibility furthers the distance between the concept of understanding consent and the real implications behind it (Kim, 2022). To use Oculus as an example, its Privacy Policy states that the data collected involves "the people, content, and experiences you connect to and how you interact with them across our Oculus Products" (Oculus Privacy Policy, 2022). This includes areas of psychological and behavioral patterns as well as the content one may possess while using the headset. This necessary engagement for an entire individual's name, image, and likeness in VR quantifies the need for regulation for individual citizen protection. The ambiguity of what "content" data is being collected also has the potential to span into intellectual property, thus breaching privacy and property rights.

The United States has a similar regulatory system to that of the GDPR, however, there are also some large differences. In the United States, there is a more patched version of data regulation. The fragments of policy consist of The Health Insurance Portability and Accountability Act (HIPAA), The Gramm-Leach-Bliley Act (GLBA), and The Federal Information Security Modernization Act (FISMA). The breakdown of these policies is as follows:

- HIPAA is a federal law that protects patient healthcare information that regulates how healthcare providers must protect patients' data from fraud and theft (Centers for Disease Control and Prevention, 2022). It also limits the way organizations can utilize or disclose health information protected under this law (Centers for Disease Control and Prevention, 2022).
- GLBA is an act by the Federal Trade Commission that sets responsibilities for financial institutions to protect consumers' security and personal information (Federal Trade Commission, 2022). It expects these institutions to practice transparency in their information-sharing practices with their customers (Federal Trade Commission, 2022).
- FISMA (2014), previously known as the Federal Information Security Management Act (2002), is a federal law that requires government agencies to "develop, document, and implement an agency-wide program that provides information security" (Pop, 2022). The most recent update in 2014 was taken as a step towards modern technology to secure federal information technology systems that can respond to modern cyber threats (CyberSecurity & Infrastructure Security Agency, 2023).

The American State of California has also attempted to protect user data through the California Consumer Privacy Act of 2018 (CCPA). This act "gives consumers more control over the personal information that businesses collect about them and the CCPA regulations guide how to implement the law" (Bonta, 2023). Most recently updated in February of 2023, the CCPA protects the right to know, delete, and opt out of personal information collection and sale (Bonta, 2023). California Privacy Rights Act amended CCPA in November of 2020 and added additional protections that include the right to correct inaccurate information and limit the use of personal information collected (Bonta, 2023). The CCPA is the most relevant form of GDPR that exists today in the United States.

Role of AI in Marketing

Today, artificial intelligence is the most common technology that showcases the future of Web3. AI applications in digital businesses are an important tool for technology today with the role of AI decision-making being a leading factor. There are four variables related to the application of AI reflecting human decision-making: human-to-AI delegation, AI-to-human decision-making, human-to-AI decision-making, and combined AI and human decision-making (Ljepava, 2022). Businesses can utilize AI to open opportunities for analyzing data that traditionally could not be done before. They can use AI systems to examine various forms of datasets that can help formulate recommendations from the analysis (Ljepava, 2022). This analysis style structure directly reflects the application of AI and human decision-making in business.

The current trend in AI systems and marketing techniques is continuously developing, and needed research in the field of these technologies will be vital with the exponential growth of technology today. AI is expected to guide the personalized customer journey and "optimize

customer experience, conduct a micro-segmentation, and develop predictive models for future customer behavior" (Ljepava, 2022). This technique utilizing AI technology in advertising and marketing is called "agile advertising", which is an approach to advance productivity and achieve organizational goals (Drummey, 2021). Some examples of AI in marketing today include automated outreach and scheduling, potential customer identification, customer support, tailored product ads, and performance analytics tracking (Schroer, 2023). One of the more advanced AI marketing systems that track human behavior is through the company Affectiva. Affectiva is a smart tech company whose mission is to gather insight through an emotion AI tool, which relies on sensors and webcams to determine customers' emotional reactions to the content they provide (Schroer, 2023). These styles of analytics all are built to gather information for targeted marketing techniques, particularly in Web2 and Web3 advertising.

Analysis

Current uses of technology, data, and artificial intelligence systems are posed to threaten democracy and the rights of U.S. citizens (Office of Science, 2022). Because of this, the White House Office of Science and Technology has developed a Blueprint for an AI Bill of Rights as an introductory guide to protecting citizens against areas of malpractice. The five principles for this blueprint are the following: safe and effective systems, algorithmic discrimination protections, data privacy, notice and explanation, and human alternatives, consideration, and fallback (Office of Science and Technology, 2022). The development of this digital bill of rights is specifically targeted at AI systems but is also being formulated with the expectation of technological growth. Overall, the purpose of this bill is to begin to exercise human rights protection to autonomy, privacy, and speech with the evolution of technology. The Blueprint will serve as the groundwork for the proposed policy of advertising protection. The five principles

listed will be expanded on and allow for another principle concerning Web 3.0 and the metaverse in protection against target advertising factors of marketing strategy.

The AI Digital Bill of Rights establishes a great groundwork for policy in Web3. As it is now, Web2 is filled with actions from social media, big tech, and other data mining technologies that push the boundaries of personal privacy rights. The conversation about the uses of Web3 for businesses is important, but policy and regulation are necessary when establishing the future of advertising. Advertising uses data for target advertising, which in turn can impose privacy expectations. This is especially important in a world with technology that requires plenty of personal privacy to "properly" function. Transparency can be the connection between governmental regulation and consumer expectations for organizations when implementing new technological techniques to stay relevant in the future.

The AI Digital Bill of Rights is broken into seven large sections, with 5 principles that will guide the practice of the bill (noted with a "+" below). The sections are as follows: What is the Blueprint for an AI Bill of Rights?, Applying the Blueprint for an AI Bill of Rights, Relationship to Existing Law and Policy, Definitions, From Principles to Practice, + Safe and Effective Systems, +Algorithmic Discrimination Protections, + Data Privacy, + Notice and Explanation, + Human Alternatives, Consideration, and Fallback, Examples of Automated Systems, and Listening to the American People (Office of Science and Technology, 2022). This bill is to reflect the GDPR to provide a more detailed angle in combating speedy the growth of Web3. However, since late last year, there have been no updates regarding policy to protect consumers from targeted advertising.

When reviewing each section in the bill, there is no clear distinction between consumer self-regulation and organizational data management. The GDPR upholds key rights to protect the

autonomy of consumer regulation, and the AI Digital Bill of Rights is a continuation of that expectation (*The general data protection regulation, 2022*). Yet, the problem arises with the ability for virtual reality data to be collected much more subtly than its Web2 counterpart (Kim, 2022). Hence the integration of lessons for users to participate in will aid in transparency for the company mining the data and the user experience understanding that data are given up.

Unfortunately, this integration does not necessarily mean that data mining will be extinguished. It may only create more crafty ways around policies to capitalize on metaverse expansion. More importantly, the future of work, social life, and real-world products will all be integrated into a Web3 atmosphere, making it easy to overlook data mining for advertising. Moreover, these concepts are currently applied to how the law treats “street crimes” (e.g. disturbing the peace, indecent exposure, deliberate harmful visuals, and “virtual groping”), tort lawsuits, the treatment of other users’ avatars/catfishing avatars, privacy law, and speech-conduct distinction within the metaverse (Lemley & Volokh, 2018). While these conceptualizations are important to discuss, the AI Digital Bill of Rights and GDPR reflect more concrete forms of stolen information, such as identity theft and fraud. This policy in addition to the AI Digital Bill of Rights will be supplemental to the stolen information, and therefore a steppingstone to integrating law into the metaverse.

There are two solutions to targeted marketing techniques in the metaverse. Firstly, there is a need to expand, clarify, and combine FTC’s advertising rules and regulations with the AI Digital Bill of Rights section on safe and effective systems. A concrete percentage to which an individual’s personal property can have targeted advertising will break up the agenda-setting companies have when pushed products onto consumers. There is a large difference between targeted advertising on a cell phone or computer because of the ability of one to simply turn off

that technology. The bridge Web3 has between the physical and psychological realms begs the need for boundaries from data collection and advertising.

The second solution is to provide users with personal VR/AR technology allowance for personal property. Like it is with cell phones and computers, there is a physical aspect to allowing access to social media platforms. Further, social media platforms are further regulated by agencies such as the FTC to clarify their privacy policies while using that said media. Access to social media through a cell phone is parallel to access to the metaverse through a headset or glasses. Therefore, policy and regulation should follow the same suit.

This second solution should allow participants in the metaverse to purchase property where they will be able to customize and ‘log off’ from the external world. Similarly, to turning off a computer or cell phone, access to a digital home space where advertisements are only allowed if the user turns on that function will protect that user from targeted advertising. Further, within this virtual property, there should not be any data mining allowed unless the owner allows that functionality. This gives more power to the user of the technology that gives them access to the metaverse. For companies, this can also provide liability protection when weighing privacy for their consumers.

Conclusion

New technology is a part of life that is explorative, beneficial, scary, unknown, spontaneous... the list goes on. This technology can be as simple as a pen and paper, or as complex as an AI generated program. The growth of Web2 into Web3 is fast and at times can be reckless, but that does not mean it isn’t worth the expansion. In all things in life, there are always benefits and consequences. Further, the foundations of law are built from policies that are there to protect individuals from injustice (Zenor, 2021). The gaps between current advertising law

and law in Web3 must be filled with extensions of policy that explicitly state the means to which companies can access data. This data encompasses areas of VR/AR and AI systems and goes beyond social media marketing today. Therefore, the integration of advertising law (i.e. Online Advertising and Marketing with the FTC) into both the GDPR and the Blueprint for an AI Bill of Rights must move quickly, be stated clearly, and transparent.

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