CENTER FOR DIGITAL DEMOCRACY

Center for Digital Democracy
Trade Regulation Rule on Commercial Surveillance and Data Security
Federal Trade Commission
ANPR, R111004
November 21, 2022

"Acute Myeloid Lymphoma," "ADHD," "Brain Cancer," "High Cholesterol," "Lung Cancer," "Overweight," "Pregnancy," "Rheumatoid Arthritis," "Stroke," and "Thyroid Cancer." These are just a handful of the digitally targetable medical condition "audience segments" available to surveillance advertisers.[1] While health and medical condition marketers—including pharmaceutical companies and drug store chains—may claim that such commercial data-driven marketing is "privacy-compliant," in truth it reveals how vulnerable U.S. consumers are to having some of their most personal and sensitive data gathered, analyzed, and used for targeted digital advertising. It also represents how the latest tactics leveraging data to track and target the public—including "identity graphs," artificial intelligence, surveilling-connected or smart TV devices, and a focus on so-called permission-based "first-party data"—are now broadly deployed by advertisers—including pharma and medical marketers.

Behind the use of these serious medical condition "segments" is a far-reaching commercial surveillance complex including giant platforms, retailers, "Adtech" firms, data brokers, marketing and "experience" clouds, device manufacturers (e.g., streaming), neuromarketing and consumer research testing entities, "identity" curation specialists and advertisers. As an organization that has closely followed commercial online marketing developments since the early 1990's, we see a U.S. surveillance-marketing industry that has been allowed to be largely unaccountable. It has had no real limits, no meaningful ethical rules, no consistent adoption of consumer or privacy safeguards. The commission has served as a key accomplice to what can only be described as a purposeful systematic undermining of privacy in the U.S. This includes the agency's support for a "notice-and-choice" opt-out regime that was deliberately designed to maximize data collection.

During each stage of the commercial surveillance evolution over the last quarter century, the FTC could have acted—if not proposing rules, then acting as an ethical voice to sound the public alarm. It could have called for a halt to the "behavioral" targeting tactics that tracked us online during the early years of this century. It was largely inactive as cross-device data collection became the norm, with the mass adoption of mobile devices, social media and apps (a goldmine on geo info to this day). The commission also ignored the privacy (and ethical) impacts of data-driven "real-time" bidding/programmatic advertising—now the dominant method for marketing in the U.S.—where individuals are bought and sold by advertisers and publishers in milliseconds. It has now failed to challenge today's widespread integration of machine learning and artificial intelligence by platforms to further power data-driven advertising through predictive data

targeting.[2] The commission has also enabled "Big Data" to get even bigger, as the FTC (and the DoJ) allowed leading online platforms, large data brokers, leading advertising agencies, and other tech giants to scoop up dozens of their data and digital marketing competitors.[3]

We submit as representative of today's commercial surveillance complex the treatment of medical condition and health data. It incorporates many of the features that can answer the questions the commission seeks. There is widespread data gathering on individuals and communities, across their devices and applications; techniques to solicit information are intrusive, non-transparent, and out of meaningful scope for consumer control; these methods come at a cost to a person's privacy and pocketbook, and potentially has significant consequences to their welfare. There are also societal impacts here, for the country's public health infrastructure as well as with the expenditures the government must make to cover the costs for prescription drugs and other medical services. The processes we describe below also occur in the other areas dominated by commercial surveillance—including grocery, retail, entertainment and financial services. But due to time constraints, as well as CDD's filing two other submissions to this docket (with partners), we focus here on the digital health sector.[4]

Surveillance Marketing and Health Data: Consumers now rely on the internet to obtain information about their health concerns—conditions, treatment, drugs, providers. Even other health marketers refer to "Dr. Google" as a place the overwhelming majority of consumers rely on daily "for insight into their ailments and symptom relief."[5] Health consumers also use social media, search engines and medically focused websites to ask questions and seek support. Health professionals also rely on online resources for information, including when prescribing medications. Both health consumers and health care professionals (HCPs) are targets and often unwitting participants in the data-driven health surveillance-marketing complex.[6]

People with or who are concerned about medical issues, whether patients, health information seekers or HCPs, surely expect and deserve the utmost privacy regarding their data. They may believe they have some protections, via HIPPA and so-called "privacy-compliant" claims from marketers. But with data on a person's health interests so valuable to marketers, including drug companies, and with the overall failure of regulators to police this sector, the online health marketplace has become an environment in which "patient privacy" is now an oxymoron. The goal is to encourage and sell to U.S. consumers an array of branded prescription drugs, various treatments for medical services as well as over-the-counter (OTC) remedies. OTC and prescription drug companies and other health marketers engage in an array of tactics, including the use of artificial intelligence and sophisticated Big Data analytic platforms, to identify and target health consumers and people who have medical conditions. The financial consequences of the unfettered use of data-marketing practices on Americans is considerable. According to eMarketer, U.S. prescription drug spending will continue to rise through 2026, to $730.50 billion, "based on the growing number of people with one or more chronic conditions."[7]

Health and pharma marketers have adopted the latest data-driven surveillance-marketing tactics—including targeting on all of a consumer's devices (which today also includes streaming video delivered by Smart TVs); the integration of actual consumer purchase data for more robust targeting profiles; leveraging programmatic ad platforms; working with a myriad of data marketing partners; using machine learning to generate insights for granular consumer targeting;

conducting robust measurement to help refine subsequent re-targeting; and taking advantage of new ways to identify and reach individuals—such as "Identity Graphs"— across devices. For example, health care "marketing leader" Lasso works with Microsoft's Xandr programmatic marketing division to target "healthcare audiences with scale and precision" using first-party data-based "Publisher Provided Identifiers" (PPIDs). Its "Blueprint" self-service "audience builder" "enables marketers to create high-value audiences composed of health care providers and consumers based on diagnoses, medications, procedures, insurance data, demographic information and much more." It offers "thousands of relevant, prebuilt HCP and DTC (direct-to-consumer) audiences [with] unprecedented granularity… for any healthcare targeted use case." Illustrating how adtech has expanded the ability to leverage consumer information for targeting, Blueprint also enables "layering on any combination or exclusion of conditions based on clinical filters, demographic information, location, purchase behavior, media engagement and more."

Marketers and media agencies can immediately activate these audiences across all programmatic channels, social platforms and email or distribute to other DSPs (demand-side platforms) via Xandr's solution, Xandr Curate. In one published case study, Lasso promoted a drug for breast cancer by targeting prescribers using "two custom-build claims-based audiences—one comprised of HCPs who recently prescribed competitive drugs and one comprised of HCPs who recently rendered breast-cancer-related surgeries." (Its case study provides data on the cost effectiveness of its surveillance targeting of HCPs working in this area).[8] Among the conditions Lasso can target are "depression and anxiety," "stroke, heart disease, Type 2 diabetes, hypertension, obesity," and patients suffering from the effects of tardive dyskinesia (which can result from taking certain anti-psychotic medications). Using machine-learning technology, Lasso trained a program to generate a model audience analyzing what it says is "a certified HIPAA-compliant database with coverage of more than 70% of all de-identified US medical claims data over the past 6 years," combined with "consumer attributes like age, gender, household, etc." This model "predictively outputs patients with the likelihood of having the specific health condition of interest. The marketer can target the modeled audience through Lasso or distribute to any programmatic or social platform for immediate activation."

Lasso, as many other advertisers, have embraced so-called "cookieless" solutions, partnering with companies that have developed various approaches to determining someone's identity. It is working with The Trade Desk, for example, known for its "Unified ID 2.0 Identity Framework." There are now 900 health-related audience products part of the Trade Desk's Data Management Platform used for ad targeting.

As many other surveillance advertisers do, Lasso partners with leading consumer product purchase data and marketing analytics company IRI, enabling it to target health consumers more precisely by using "100% deterministic purchase data" as well as a scoring analysis generating "the highest-propensity to buy households that are addressable in the U.S., descending from most valuable to least valuable."[9]

Veevo's Crossix, the source of the disease-targeting categories cited in the opening of this filing, compiles its medical condition targeting segments using numerous data points, including "consumer activity, consumer characteristics-financial, age, media consumption, buying activity, real property, consumer traits, Geo Relevance Data, Vehicle ownership, Life Events, Payment

Activity, Hobbies, and Geo Census Data." It is integrated in more than 60 demand-side and data management platforms. To help hone and deliver these health-data segments (which also include "alcohol dependence," "chronic pain," "Hodgkin's Lymphoma," and "Ovarian Cancer"), Crossix explains in its privacy policy that "we may ask our partners to identify devices or browsers of users with specific demographic and consumer attributes, and the users of these identified devices or browsers may receive Tailored Advertising in their web browsers, within mobile applications, and on connected TVs." Crossix, as do others, says it follows the Network Advertising Initiative (NAI) self-regulatory code on health-audience-segment marketing. However, we believe that this is a prime example illustrating the ineffectiveness of industry self-policing itself, given the structure and reach of consumer digital health surveillance marketing today.[10]

Crossix's "data network covers more than 300 million individuals" and work with the "top 25 pharmaceutical companies to leverage massive amounts of data." Its data comes from "retail and specialty pharmacies, switch companies, plan data, EMR platforms, loyalty card data and more." This information includes such elements as "filled Metformin prescription," diagnosed with Type 2 Diabetes, Low-sugar snack foods, received Fluzone High Dose vaccine, seeks medical information on web, tested for HCV, [subscribes to] diabetic living magazine," and others. Using its own version of a data "clean room," the company claims it is "able to connect health and non-health data in a way never before possible, delivering a more complete picture of patients." Illustrating how marketers claim they are engaged in data protection responsible approaches, while knowing full well the system is designed to accurately reach its intended targets, Crossix says its "SafeMine" technology protects privacy while delivering "deeper insights, more precise targeting and more accurate, ongoing measurement of marketing campaigns."[11]

Crossix illustrates another fundamental feature of contemporary data-driven marketing: its deep integration into a web of partnerships with other data brokers and platforms. Numerous data marketers are aligned, enabling surveillance marketers to mix several powerful datasets incorporating health, financial, geolocation and other information. For example, Crossix partners with LiveRamp, a leading provider of robust data profiles that reflect a person's online behaviors on different devices and applications. Marketers can integrate Crossix with AdTheroent ("geo-intelligence"), Experian, Equifax, and dozens of other data, media and adtech partners participating in the LiveRamp system.[12]

As with other marketers, health and pharma companies engage in campaigns to target America's diverse "multicultural" communities. Pharma advertisers have significantly increased targeting of what it calls "underserved patient populations"; Crossix says there has been a "66% increase in multicultural messaging campaigns from 2020 to 2022. Pharma and health marketers are using programmatic channels, including for audio and video, and including Spanish-language outlets.[13]

Connected/Smart TV (OTT): Another growing method targeting health consumers is streaming video, including "connected TV." Streaming video through smart, connected and OTT ("over-the-top") services has been purposefully engineered to become a vital point of data capture for the commercial surveillance-marketing complex. Data broker giant TransUnion, which has been allowed to swallow up a number of leading data and streaming video marketing companies over the last few years, enables "health brands [to] improve targeting across streaming media." The

Veeva Crossix "health audience segments" are now part of what TransUnion calls its "TruAudience Data Marketplace." In making the announcement in early November 2022, TransUnion took note of how "pharmaceutical and medical advertising is flourishing, ranked second among advertising verticals in 2021 with $5.6 billion spent in the U.S. With Veeva Crossix data now available in the TruAudience Data Marketplace, advertisers can target across direct-to-consumer (DTC) and healthcare provider (HCP) segments, delivering tailored ads that resonate with consumers and HCPs."[14] Five hundred health audience segments are available.

Pharma companies already recognize the data available from today's streaming system for TVs, including the ability to combine "Automatic Content Recognition" (ACR) data gathered by leading set manufacturers with "step-top box data, along with other digital data, in order to better target and measure across not only digital and linear TV, but the multichannel ecosystems, up to and through the point of conversion." One guide for pharma explained that advertisers can create "a digital audience for targeting across screens based on 1:1 matching"; tracking "a patient's behavior…after exposure to [the] TV creative"; targeting that individual "on other screens (desktop, mobile, social)"; and creating "look-alike models…new audiences that look like existing high-performing audiences."[15]

Retail Media Networks/Health: Drug store chains such as CVS have also become data-driven digital marketing companies, part of the explosion of "retail media networks" that turn every pharmacy, grocery chain and dollar store into a surveillance-marketing entity. With "mini-clinics" for immunizations and other necessary health product delivery available at supermarkets, major retailers, as well as pharmacies, an abundance of health and health-connected information is gathered through loyalty and coupon programs and other data-gathering practices regularly conducted online and offline. Rural and urban consumers are a growing target as they get classified as "patients in pharmacy deserts," in "neighborhoods with limited pharmacy access." CVS Media Exchange (CMX) was launched in 2020 by the drug store chain. CMX "allows advertisers to target ads across channels informed by CVS customer data. The platform can be used to serve off-site programmatic display, online video, search and social ads, banner ads on CVS.com and in-store placements within CVS locations." CVS claims to have permission-based access to decades worth of data from its loyalty program, and has the ability to target "78 million addressable households." It mines this database "to unlock and target shoppers with the highest propensity to purchase… based on past purchase history." It also combines "purchase history data" with information collected by monitoring "digital engagements on and off of CVS properties and other interest-based data" to generate its surveillance-based health marketing.[16]

Similarly, drug chain Walgreens offers marketers the ability to leverage the more than 100 million members of its loyalty program—which it classifies as "first-party data"—and "one of the largest sources of deterministic, transactional customer loyalty data in the U.S."
It offers a range of programmatic targeting and "social media solutions" for pharma, health and wellness and other advertisers, including working with data-targeting companies The Trade Desk and Open X. As many other surveillance-marketing entities also do, Walgreens tells advertisers that it can "link customer purchase data with exposed campaign data," enabling ongoing surveillance targeting.[17]

Physician and other Health Care Professional Data: The pandemic further accelerated pharma and health advertiser reliance on digital data channels. As one health marketer explained, "with face-to-face interactions largely on hold, reps aren't seeing physicians at nearly the same rate as before…. [P]atients are not going into their doctors' offices for treatment. In most cases, marketers have sought or implemented ways in which technology could help fill these communications gaps…. Connecting digitally has become the norm for HCPs (health care professionals) and reps." A key source of data gathered on physicians and other prescribers is now the electronic health record (HER) system, where professionals are said to spend "at least 55%" of their screen time. Pharma and other health marketers have access to a number of the HER systems, so their "treatment is top-of-mind for providers when they see your brand messaging as they log in to manage the patient chart and prescribe information." Using "predictive AI models," HER's become "the ideal place to understand the right time to deliver a targeted message because of the visibility into a physician's activities. Those activities are indicators for what stage a patient is at in their care."

There is a significant amount of data on HCPs collected and analyzed by health marketers, who "score" them based on their behaviors. One health marketing company specializing in "engagement" strategies explained that "through data-driven segmentation, pharma marketers can identify where each clinician is on their patient care or brand journey, as well as what channels align with their information consumption preferences."[18] As health care marketing company "Optimize Rx" explains, its platform uses "real-world data and driven by AI advanced analytics to ensure vital prescribing or affordability information is delivered based on the disease states or benefits profiles of each provider's patient population in real time."[19]

The infrastructure to help deliver data on health consumers includes a set of specialized digital health marketing and advertising agencies and practices. For example, pharma marketer Havas Health & You uses "proprietary, AI-enabled conversational analysis… to pinpoint sources of health influence in real time" to "assist brands in forming relationships with leading individuals." A goal here is to identify health consumers who can be persuaded to influence "other patients in online communities."[20] The consolidation of health data assets used for advertising and marketing has also been compounded through ongoing M&A activity in the health area—such as the combining of CVS Health and Aetna. The company's digital marketing and advertising work to generate further revenues from Medicare clients, for example, involves the merging of data science, "paid and organic first, second and third party data… A/B tests, in-flight optimization, attribution models, propensity to buy models" as well as the use of "identity resolution and digital data connectivity platforms [such as] LiveRamp, Experian and Throttle."[21]

Identity Graphs and Customer Data Platforms: Reflecting a key surveillance-marketing trend—one that has been accelerating with the growing focus on obtaining so called first-party data with alleged consent for use—is the role of both identity graphs and customer data platforms (CDPs). ID graphs enable marketers to integrate numerous data points gathered from multiple consumer devices so they can effectively identify a single person for ad targeting. Such graphs are the evolution of the "data append" system that helped better ensure consumer cross-device tracking and targeting. One identity graph company working in the health, streaming video and retail sectors explains that the ID graph is like "a Rosetta stone that helps you translate points across various disparate sources of data to a common ID." Throttle's ID graph

incorporates "billions of data points" and is daily updated so that "no matter [where a consumer may] move, we reconnect them to a true identity every time." There are "250 million individuals" who have been assigned "Throttle Ids," which are "connected to any and all identifiers for each individual, name, address, email, phone, social handles, etc." Throttle also holds "350 million Mobile Ad Ids (MAIDs) authenticated with "log-in data." Identity Graph technologies enable marketers to "collect and connect various personal identifiers to a single individual; determine up-sell or cross-sell opportunities; map and enhance your data to make it revenue generating across multiple marketing channels and platforms."[22]

For health marketers, Throttle "enables the linking of de-identified data across the entire patient journey, including electronic health records, claims and diagnostics, and prescription fills. Connecting these data sources to our robust Healthcare Identity Graph provides an accurate 360-degree view of each patient, facilitating more precise targeting and highly relevant, effective marketing confidently across all channels and devices." This method enables pharma and health marketers to identify prospective targets and "build predictive audiences," create "custom consumer audiences," "target across channels," and engage in measurement operations as well. Despite what may be claimed to be "privacy centric" or some other term used to suggest protections, the goal here is to enable health and drug marketers to engage in "relevant 1 to 1 messaging [by] connecting datasets across channels for better insight and personalization."[23]

Today, every large Fortune-500-type company is a Big Data operation, engaging in the same surveillance-marketing techniques pioneered by Google and others. Companies gather their own first-, second- and third-party data sets, integrating them through the use of CDPs. These CDPs and related adtech services deliver integrated marketing communications to patients and providers. In the health-marketing sector, products such as "Tealium for Pharma" are designed to "fully automate and activate customer journeys across physical and digital channels." This product enables health advertisers to "collect and unify first-party and third-party data in real-time to understand and target HCP and patient behavior," and can "increase script lift with targeted engagements" as well as "connect online and offline experiences." It incorporates extensive data collection, analytics from other platforms, and "pharma-specific engagement technologies." Amazon's AWS offers Tellium's "Audience Data Hub"as well.[24]

Conclusion: The commission has a critical window of "opportunity" to propose reasonable and responsible policies so that consumers, citizens and online publishers can all equitably benefit from the digital economy. Today's highly intrusive personalized ad-surveillance system only dominates because there have been no serious pushback from the FTC and policymakers. If the commission fails to act and stop the unfettered expansion of second-by-second and always-on digital surveillance, the opportunity to restore any privacy protections to the U.S. public will likely be out-of-reach forever. As CDD explains in its other submissions in this docket, we support proposals from the Electronic Privacy Information Center (EPIC) and others to ensure meaningful data minimization. We believe that responsible use of contextual advertising should be explored to replace today's dominant surveillance (programmatic) marketing system. There should be no exceptions for so-called "first-party" data to be used for tracking, targeting and developing models to reach other consumers. The commission should also open an investigation of contemporary health-marketing practices described in this comment.

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Washington, DC
21 November 2022

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[2] https://support.google.com/google-ads/answer/9065075?hl=en; https://www.facebook.com/business/news/good-questions-real-answers-how-does-facebook-use-machine-learning-to-deliver-ads

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[4] CDD has partnered with Fairplay on a submission regarding children and teens. It also has jointly submitted comments with the American Economic Liberties Project.

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