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Health Surveillance:

Data Collecting by Patent Medicine Firms and Pharmacies, 1880-1950

By Elsie Sheppard

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Introduction

Modern corporations collect massive amounts of personal information to target advertisements and market to specific demographic and psychographic groups, a core feature of our "Big Data" society (Zuboff, 2015, p. 76). Shoshana Zuboff (2015), author of *The Age of Surveillance Capitalism*, argues that "Big Data" is a component of a new phenomenon called surveillance capitalism (p. 75). Surveillance capitalism utilizes personal information from consumers "to predict and modify human behavior as a means to produce revenue and market control" (Zuboff, 2015, p. 75). Corporations harvest information on even the smallest actions made on a computer, such as "Facebook 'likes,' Google searches, emails, texts, photos, songs, and videos, location, communication patterns, networks, purchases, movements, every click, misspelled word, page view, and more" (Zuboff, 2015, p. 79). While surveillance capitalism uses predictive artificial intelligence (AI) programs to predict what consumers like, what they want to see, how they think, and how they will act, the surveillance and secrecy involved in such data collection plays a prominent role in business success (Zuboff, 2019, p.88).

The surveillance and secrecy that surrounds the collection of personal data used to create and disseminate advertisements may appear to be a new phenomenon with the onset of Big Tech, however, historical businesses, such as patent medicine firms of the late 1800s and early 1900s, implemented surveillance and secrecy to collect personal data to use for their advertising campaigns. This research project will analyze the personal data collection by patent medicine firms in North America from 1880 to 1950, comparing historical methods of data collection to modern surveillance capitalism. This paper will answer the following questions: how did patent medicine firms use mail-order questionnaires, copy testing, solicited letters from consumers, and

surveys to surveil their customers to create and target their advertisements? Moreover, how do these practices illuminate the beginnings of a surveillance capitalist mindset?

This paper will focus on the advertising activities of one popular historical patent medicine firm, the Lydia E. Pinkham Medicine Company (the "Pinkham Medicine Company"). The paper will first provide a review of literature about the state of the medical field in the 1800s and early 1900s on the success of patent medicine firms, the most common marketing techniques used by patent medicine firms, and the history of market research outlining the market research techniques adopted by historical businesses. Following, the paper will not only provide a history of the Pinkham Medicine Company but also will organize the company's personal data collection and market research activities into two categories: traditional market research and covert market research. Traditional market research refers to direct market research tactics where consumers know they provide personal information and opinions for a business to use for product development and advertising. Covert market research refers to using surveillance to gain information on consumers without their explicit knowledge of how that information is collected or used. I argue that while patent medicine firms engaged in traditional market research, their market research activities also went beyond typical means, shifting towards surveillance to commodify personal data, a key feature of modern surveillance capitalism. I argue that while the covert market research conducted by the Pinkham Medicine Company differs from the surveillance capitalism utilized by Big Tech in the 21st century, there are similarities including the use of surveillance and secrecy to collect consumer data. These covert market research activities can provide insight into the beginnings of today's surveillance capitalist mindset.

Methodology

To better understand how historical patent medicine firms collected personal data, this research project will employ qualitative methodologies, such as multimodal critical discourse analysis and content analysis of historical documents from the Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985 at the Schlesinger Library, Radcliffe Institute.

Schlesinger Library Research Process

The Records of the Lydia E. Pinkham Medicine Company contain financial documents, advertising documents, and general records related to Lydia E. Pinkham's business and products. This collection contains over 200 boxes holding thousands of documents, images, and oversized items. To narrow my search to the documents most relevant to my project, I identified boxes of interest using Harvard Library's Hollis for Archival Discovery system (Hollis). Hollis lists all the series and subseries in the Pinkham Medicine Company collection with short descriptions of the contents of each series and subseries. Series II, Advertising Records, ca.1844-1968, (Series II) was of particular interest to my project. This series contains "articles about the Pinkham company, reports of ad sales, extensive documentation of the company's newspaper and magazine advertisements, correspondence about advertisements and their costs, and art work used in advertisements" (Hollis, n.d.). I believed the correspondence of and the articles about the Pinkham Medicine Company would provide insight into the company's use of consumer data for advertising purposes. However, Series II holds thousands of documents, so, I needed to narrow my search further. I examined the list of documents in Series II to select specific relevant documents. Using relevant search terms, such as "testimonials," "pamphlets," "questionnaires," and "letters," I selected Subseries F Pinkham Pamphlets and Textbook, 1893-1962 (Subseries F) and Subseries G Novelties and Gifts, 1906-1968 (Subseries G). Subseries F included documents

relating to testimonials and pamphlets while Subseries G included documents relating to package insert questionnaires that consumers completed and returned to Lydia E. Pinkham.

I also wanted to learn more about the Pinkham Medicine Company as a business to better understand why they collected consumer information. To obtain this information, I selected documents from Series III, General Records, 1776-1968 (Series III). Like Series II, Series III holds thousands of documents. So, I had to select specific subseries to have a manageable number of documents to review. To narrow my search, I used search terms such as “letters,” “market research,” and “advertising research”. From this search, I identified one subseries of interest, Subseries A, Research Studies, 1925-1960. Through this search, I identified six boxes to view in-person. I added each subseries from both Series II and Series III to my request list on Hollis and requested a reading room visit.

While in the reading room at the Schlesinger Library, I viewed one folder at a time. I read through each document in each folder and scanned all documents of interest. I arranged my scanned documents into digital folders identified by box number and data collection type. I used an application on my iPad called GoodNotes, which allowed me to scan documents and create the digital folders to organize the scans. I created four main folders: “Testimonials,” “Questionnaires,” “Solicited Letters” and “Miscellaneous.” I could then organize the scanned documents by type of data collection. The “Miscellaneous” folder included research reports and other business reports that related to the company’s advertising activities, but either did not specifically mention testimonials, questionnaires, or letters or mentioned all three in one document.

In addition to analyzing historical documents, this research project draws on theoretical works on surveillance and personal privacy, including Zuboff’s *Age of Surveillance Capitalism*

and Nick Srnicek's *Platform Capitalism*, to compare historical surveillance and data collection techniques of patent medicine companies to those of modern companies and to raise ethical concerns about personal data collection as a marketing tactic.

Situating Surveillance by Patent Medicine Firms

Many scholars locate the rise of surveillance capitalism and the use of "Big Data" in North America to the 1980s and early 1990s with the invention of the internet, the dot-com boom, the increased use of personal computers, and the creation of Google (Zuboff, 2019; Srnicek, 2017). However, other scholars argue that factors of surveillance capitalism, such as surveillance and the use of personal information collected from consumers to target advertisements, were used in the late 19th century. In *Creditworthy: A History of Consumer Surveillance and Financial Identity in America*, Lauer (2017) asserts that life insurance and credit reporting firms collected and sold consumer information as early as the 1840s (p. 4). Lauer (2017) argues that this use of personal information by credit firms in the 19th century, even without the use of modern predictive algorithms, aimed to "control the behavior of American citizens and to quantify their value in a growing array of contexts, from credit and insurance risk to consumer analytics and target marketing" (p. 4).

Lauer (2017) explains that credit firms engaged in two types of data collection: blacklists, listing people who owed money to banks and insurance firms, and the affirmative-negative system, which collected the financial information of every person, not only debtors, in a geographical area (p. 59). This data helped to "gauge the *limit* of the person's creditworthiness" while also acting as a perpetual monitor that encouraged people to make payments on time (Lauer, 2017, p. 59). By the late 1800s, credit reporting firms were more common. Businesses, such as the Retail Dealers' Protective Association (RDPA), a New York based credit reporting organization founded in the 1870s, "published annual affirmative-negative rating books" so that

businesses of all kinds could distinguish between honest and delinquent customers (Lauer, 2017, p. 66). Lauer (2017) asserts that the data collected and used by credit reporting firms and other businesses “imposed normative standards that regulated the conduct of individuals even in seemingly noneconomic domains of life” (p. 127). Credit managers used credit rating books, in addition to other personal information including birth and marriage records, tax documents, and permits, to curate direct-mailing lists (p. 145). Credit reporting firms were not the only businesses in the 19th century that surveilled consumers for personal information for promotional purposes with the goal of influencing consumer behaviour. So too did historical patent medicine firms.

Patent medicines were over-the-counter health products that claimed, often falsely, to cure various ailments (Young, 2015). In the 1800s, as medicine was not advanced by today’s standards and doctors lacked modern medical knowledge, people resorted to other treatments, including patent medicines, for most illnesses. Patent medicines typically included dangerous ingredients, such as high levels of alcohol, opium, and other narcotics, which were not then regulated by the government (Young, 1960, p. 656). These types of products were also referred to as “quack medicines,” as many patent medicine products claimed to cure life-threatening symptoms, when, in reality, these symptoms were simply masked by unregulated pain-killing drugs (Dixon, 1910, p. 83). While the name patent medicine suggests that these products were patented, many products did not obtain this status, and the term rather refers to “proprietary remedies recommended in the treatment of disease” (Dixon, 1910, p. 83).

The American Civil War increased the popularity of patent medicines. While many men were killed fighting in the American Civil War, disease was another prominent cause of death (Danna, 2015, p. 31). Rations placed on alcohol by the American army in 1832 made many soldiers turn to patent medicines, which contained high levels of alcohol, for pain relief (Danna,

2015, p. 31). New medical discoveries, such as germ theory advanced by Louis Pasteur in the 1860s, increased public awareness of health and the causes of illness, which benefitted patent medicine companies (Albrecht, 2018, p. 9). While these factors made people more health-conscious and increased their desire to purchase patent medicine products, advertising by patent medicine firms played a prominent role in the industry's success. In an article published in the *Journal of the Royal Society of Medicine*, Dixon (1910) asserts that “Testimonials and advertisements are of paramount importance for the sale of nostrums” (p. 86). Patent medicine firms used multiple advertising techniques to promote their products, including advertising in different mediums, such as newspapers, posters, billboards, and booklets. Other advertising techniques included the building of a brand through unique packaging, slogans, and trademarks to create competitive advantages. However, one often overlooked advertising technique of patent medicine firms was the covert use of consumer data to create and disseminate more effective advertisements. To improve advertisements and increase profits in a competitive market, patent medicine firms of the late 1800s collected consumer information through solicited letters from consumers, letter brokers, testimonials, copy testing, mail-order questionnaires, and surveys. Patent medicine firms used the information provided by these data collection methods to create relevant and appealing advertisements that made claims about products that consumers wanted to hear.

Patent medicine firms of the late 19th and early 20th centuries collected personal data similarly (e.g., surveillance) to Google and Meta in the 21st century. Although modern technology and predictive algorithms of the 21st century analyze personal data to allow surveillance capitalism to thrive, modern corporations and historical patent medicine firms share the same mindset of surveilling consumers and collecting their data for advertising purposes to influence their buying behaviour. Historical patent medicine companies demonstrate core

features of modern-day surveillance capitalism, including surveillance of consumers to improve marketing efforts.

While previous scholars have analyzed the competitive market of the 1800s (Young, 1960), the branding of patent medicine firms (Laird, 2020), and the advertisements of patent medicine firms (Tharp, 1988), few scholars have examined the data collection techniques of these firms with a surveillance capitalism lens (Robinson, 2012).

Literature Review

Medicine in the 19th Century

It is important to note the impact of the state of the medical field in the 1800s on the popularity of patent medicine firms and their advertising tactics. Young (1960) not only mentions the competitiveness of the American market in the late 19th and early 20th centuries but also emphasizes the role of the underdeveloped healthcare system on the success of patent medicine firms (p. 652). An underdeveloped health care system and the need for a sense of hope were the two main reasons why people resorted to patent medicine products (Young, 1960, p. 652). People living in America during the 1800s were susceptible to many diseases, such as tuberculosis, smallpox, yellow fever, and cholera. While the causes of these diseases are known and treatable in the 21st century, in the 19th century, the causes of many of these diseases were unknown and no effective treatments existed. Patent medicines, which often made bold and false claims, were the only treatment option, even if ineffective. The use of unregulated and addictive narcotics in patent medicines made them effective in helping with pain, which enticed consumers to repurchase the products to manage their pain. People’s desperation for health solutions yet to be discovered allowed patent medicine firms to profit from ethically dubious products and advertising. The advertising of patent medicine firms appeared almost everywhere around cities:

> [P]osters [referring to patent medicine advertisements] flaunting themselves from ‘the walls of our inns -the corners of our streets, and our pumps thereof- the wrecks of burnt, dilapidated buildings, with their standing abutments-the fences enclosing vacant lots in all our cities, if not our small villages, and the decks and cabins of our steamboats’ (Young, 1960, p. 653).

The lack of legitimate treatments and remedies for common illnesses at the time made patent medicines desirable products. With the significant demand for patent medicines, many businesses entered the patent medicine industry, flooding the shelves with patent medicine products that were often similar in terms of the symptoms they treated and the ingredients they used. As competition increased, marketing tactics, such as creating bold product names and even bolder advertising claims, became necessary to gain consumer attention and to stay successful. Advertising became crucial to achieving business success.

Market Competition and Branding

Patent medicine firms relied on advertising and other branding techniques to survive in the competitive market of the 1800s. As labour and the production of products became more industrialized during the industrial revolution, businesses could make more products faster and at lower prices, increasing competition in many industries (Laird, 2020, p. 85). With more products to sell and more companies to compete against, many businesses turned to marketing strategies to create competitive advantages.

In *Advertising Progress: American Business and the Rise of Consumer Marketing,* Laird (2020) asserts that branding and public perception became crucial to inventory turnover in the late 1800s (p. 184). Patent medicine firms were some of the first companies to adopt the idea of branding products, or, in other words, to make the product instantly recognizable and thus more desirable. Laird (2020) provides the example of a patent medicine company of the 1880s and 1890s called Castoria, which did not use salespeople to sell its products, a typical marketing strategy of the era, but instead created advertisements with the slogan “Children cry for it” (p.

199). The use of this slogan made mothers instantly recognize the product and the brand, making them more likely to purchase it (Laird, 2020, p. 199). This era of advertising focused not on the previous push model of salespeople, where salespeople would sell products door-to-door, but on a pull model, where carefully crafted advertisements enticed people to buy the product based on their own desire. The goal of ads was to “generate specific demand that ensured that consumers asked for their brands only” (Laird, 2020, p. 198).

Patent medicine firms also created a brand image to curb competition in the 1800s through packaging, labeling, and logos. Tharp (1988) argues that unique bottle shapes became one of the most important aspects for patent medicine firms and pharmacies to create a brand that people could recognize and want to purchase and repurchase (p. 33). A patent medicine firm called Turlington’s Balsam used a unique cello-shaped bottle for a product that claimed to cure malaria (Tharp, 1988, p. 34). While Turlington’s Balsam was a British patent medicine firm in the late 1700s and early 1800s, when patent medicine firms moved west to the Americas, they used similar marketing techniques, such as unique bottle shapes (Tharp, 1988, p. 34). Petty (2019) provides the example of Perry Davis’ Pain-Killer, an American patent medicine product in the 1850s, packaged in a 12-sided bottle, making the product unique and distinctive (p. 291). Bottle shape was crucial to branding not only for patent medicine firms to distinguish themselves from other companies selling similar products but also for illiterate populations to recognize the brand by bottle shape rather than by reading the label (Tharp, 1988, p. 33). Companies in the 19th century knew branding was important and did all they could to create a memorable and successful brand image to promote sales in a competitive market.

Patent medicine firms of the 20th century also utilized patents and trademarks to establish brands and improve marketing. Before the 1870s, branded products were not common; most products were generic brands. However, with the rise in competition, trademarks allowed

companies to differentiate themselves from other businesses (Laird, 2020, p. 185). Laird (2020) asserts that trademarks "function as memory hooks for advertising appeals, acting as symbols with which promoters link their advertising messages to their products in the minds of consumers" (p. 185). Trademarks were another marketing tactic that patent medicine firms used to establish a brand and to sell more products. Petty (2019) explains that Perry Davis worked to trademark the term "Pain-Killer" so that no other brands could use it to their advantage (p. 295). Advertising was crucial for patent medicine firms because many companies sold similar products; marketing tactics, such as branding and trademarks, helped create a customer base that recognized the specific products presented in advertisements. The better a patent medicine firm's advertising and branding was perceived, the more products it sold. While branding allowed patent medicine firms to compete with other firms and similar products, the intense market competition at the time led to the use of more extreme marketing tactics to advertise products more effectively, such as covert market research and customer data collection.

The Pinkham Medicine Company's Branding and Advertising

Previous scholarship examines various advertising activities of the Pinkham Medicine Company. Burt (2012) analyzes five advertisements from the Pinkham Medicine Company, arguing that the combination of text and images showing women in an array of contexts, from the home to social situations to work environments, not only enticed women to purchase Pinkham products but also enforced stereotypes about women's roles in society at the time (p. 208). The Pinkham Medicine Company used images of Lydia Pinkham in its advertisements. The use of Lydia Pinkham's portrait in advertisements was an uncommon marketing tactic during the late 1800s, as women were not often shown in newspaper advertising (Burt, 2012, p. 209). Burt (2012) suggests women were drawn to the Pinkham Medicine Company's advertisements because of the rare female representation (Burt, 2012, 209). Another tactic the Pinkham

Medicine Company used in their newspaper advertisements was called “dramatized incidents” or “animated ads” (Burt, 2012, p. 209). According to Burt (2012), “These animated advertisements used double- and triple-column layouts and devoted nearly half their space to an illustration in which an ‘average’ woman appeared in a scene from ‘everyday’ life in which she interacted with another character” (p. 210). These animated ads acted as social tableau and illustrated women in Victorian society (Burt, 2012, p. 2010). Burt (2012) claims that society in the late 1800s experienced a shift “from the domestic sphere to the public sphere through expanding employment and educational opportunities as well as marriage and political reforms” (p. 210). The Pinkham Medicine Company’s animated ads demonstrated the shift from what Burt (2012) terms the “True Woman” to the “New Woman,” drawing women to the advertisements and ultimately to purchase Pinkham products (p. 210).

Albrecht (2018) analyzes some of the Pinkham Medicine Company advertisements using a semiotic analysis. Albrecht (2018) argues that the content shown in advertisements of patent medicine firms of the late 19th and early 20th centuries display three broad themes, including nature and naturalness, power, and the good life (p. 61). The Pinkham Medicine Company’s advertisements used themes of “the good life,” promoting stress-free living (Albrecht, 2018, p. 113). An ad for Lydia E. Pinkham’s Vegetable Compound from the 1880s “claims the medicine ‘removes faintness,’ ‘nervous prostration,’ ‘general debility, sleeplessness,’ and ‘depression’ in addition to the ‘female complaints’ listed” (Albrecht, 2018, p. 113). While the claims in this advertisement do not specifically mention stress, Albrecht (2018) argues that through these keywords, the Pinkham Medicine Company signified the role of stress-free living and non-physical complaints (p. 114).

Danna (2015) also examines various advertising techniques of the Pinkham Medicine Company. Similar to Burt's (2012) article, Danna (2015) emphasizes the innovation of using Lydia Pinkham's portrait in its early advertising campaigns (p. 54). The Pinkham Medicine Company's advertising agent at the time, H. P. Hubbard exclaimed that "Mrs. Pinkham personally was a lady of very comely appearance" and that the use of her portrait "tripled the value of the trademark at once, as it boomed the sales immensely" (Danna, 2015, p.54). Danna (2015) argues that the Pinkham Medicine Company's use of Lydia Pinkham's portrait in advertisements was a success because the portrait connoted feelings that alleviated health concerns (p. 54). During the late 1800s, other patent medicine firms used imagery of "scantily clad American Indian maidens, fire-breathing dragons, or intrepid explorers to grab attention" (Danna, 2015, p. 54). Lydia Pinkham's portrait offered a different feeling than other patent medicine firms' advertisements.

The Pinkham Medicine Company's advertising techniques were often the first of its time. Burt (2012) states that the Pinkham Medicine Company "became one of the country's most prolific newspaper advertisers at a time when the patent medicine industry occupied a prominent place among national advertisers, driving the development of magazines and newspapers alike in the last quarter of the nineteenth century" (p. 207). While the content of the Pinkham Medicine Company's advertisements was contemporary, the company also relied on innovative market research techniques to create new and compelling advertisements. Previous scholarship has analyzed the content of the Pinkham Medicine Company's advertisements; this paper will examine its market research techniques, including under-researched techniques focused on surveillance, such as solicited letters and techniques that have not yet been examined by researchers such as the Erwin-Wasey survey. It is important to examine covert market research

techniques, including solicited letters and the Erwin-Wasey survey, to understand better how surveillance became pivotal to advertising efforts.

A History of Market Research and Surveillance

While branding techniques such as slogans and packaging were one way for patent medicine firms to gain an advantage in the competitive market of the late 1800s, many firms also turned to market research to better advertise their products and brands. Market research refers to "the study of all problems relating to the transfer and sale of goods and services from producer to consumer" ("The Technique of Marketing Research," 1937, p. 3). While this definition covers a broad range of activities that could be considered market research, *The Technique of Marketing Research,* published by McGraw-Hill Book Co. in 1937, and Jean Converse's *Survey Research in the United States: Roots and Emergence 1890-1960,* outline the market research practices of businesses in the early to mid-1900s. Methods of market research were numerous. One market research method included panels and juries, groups of people willing to "taste things or cook them, try products, listen to radio programs, or answer questions" (Converse, 2009, p. 91). Panels could take place at a firm's office, at a person's home, or through answers by mail (Converse, 2009, p. 91). Like panels, door-to-door surveying was a popular form of market research for historical businesses. Salespeople or company representatives would knock on doors to ask people questions relating to specific products. Businesses used sampling methods to determine the houses to approach. Archibald Crossley, an American pollster and pioneer of surveying research, stated, "Mostly, we do not even have lists to work with. If we are covering a small town, the same effect is achieved by going up and down every street and taking every fourth house, for example" (Converse, 2009, p. 93). Through various sampling methods, door-to-door surveyors collected a wide variety of answers to their market research questions.

Interviewing was another effective form of market research in the early to mid-1900s. Interviewing had two categories: conversationalizing and questionnaires (Converse, 2009, p. 95). Conversationalizing involved salespeople or company representatives starting conversations with consumers, most often in stores, about topics of interest to the company; the answers would not be written down but recorded after the conversation was over (Converse, 2009, p. 95). Questionnaires were pieces of paper with pre-made questions from a company that were given to consumers to fill out. If consumers seemed willing to talk during interviews, they could be given a questionnaire to complete (Converse, 2009, p. 96). Companies could also distribute questionnaires through other means, such as by door-to-door or mail (Converse, 2009, p. 99).

Testing advertisements and window displays before launching complete marketing campaigns was another market research tactic utilized to gauge customer reactions. This type of market research was referred to as “experimental,” where companies could “try out new advertising and sales ideas; to test window displays; to determine the factors involved in the selection of locations” (“The Technique of Marketing Research,” 1937, p. 31). Consumer reaction to these tests allowed companies to improve their marketing strategies to better reach customers. Home telephones, a new technological advancement in the early 1900s, allowed for another stream of market research, telephone inquiry. Telephone inquiry involved “telephoning to a number of homes with a brief questionnaire designed to draw out the required information” (“The Technique of Marketing Research,” 1937, p. 32). Historical businesses employed a combination of these market research techniques to best market their products.

Early market research “focused on consumers' reactions to products and to advertising, especially advertising in magazines, newspapers, billboards, and direct mail” to better understand consumers’ wants (Converse, 2009, p. 90). Market research tactics, such as polling and

surveying, “were a singular technique for advertisers to probe consumer wants and actions, securing valuable information to augment the effectiveness and ‘scientific’ basis of advertising itself” (Robinson, 1999, p. 37). Many kinds of businesses polled and surveyed consumers to help predict consumer demand and to plan marketing campaigns.

In the 1930s, J. Walter Thompson (JWT), an American advertising agency, used surveys to gain insight into the thoughts and behaviours of consumers (Robinson, 1999). JWT conducted surveys regarding all kinds of products; surveys in 1929 for the food manufacturer Standard Brands concluded “that ‘three out of every four women’ bought Magic brand baking powder and that subsequent advertising had increased its sales by 5 per cent” (Robinson, 1999, p. 24). During the late 1800s and early 1900s, companies realized they could use market research to inform their advertisements to ensure that the content of the ads catered to what consumers wanted to see and thereby increase their sales and profits. Although Standard Brands was not a patent medicine firm, patent medicine firms at this time were using similar techniques to market their products more effectively. Today, market research forms part of surveillance capitalism, collecting personal data to influence consumer behaviour to benefit the business.

In “Mail-Order Doctors and Market Research, 1890–1930,” an essay published in *The Rise of Marketing and Market Research*, Robinson (2012) explains that many companies, specifically patent medicine firms, used mail-order operations to conduct market research and collect consumer information (p. 73). Mail-order operations of patent medicine firms included recruited product testimonials, solicited letters, and surveys called “symptom blanks” that were mailed to customers (Robinson, 2012, p. 74). As an example of the use of testimonials, Robinson (2012) describes Duffy’s Pure Malt Whiskey (Duffy’s), “a ‘medical whisky’ for the treatment of consumption and the promotion of longevity” (p. 78). Representatives of Duffy’s visited homes

for seniors to recruit product testimonials; the representatives asked the residents to sample the product and offered compensation for them to attribute their long lives to Duffy's product (Robinson, 2012, p. 79). Testimonials provided a sense of trust and legitimacy to potential consumers, even if those testimonials resulted from the incentives and were not genuine. Robinson (2012) states, "An AMA investigation in 1910 found that third parties secured a large share of testimonials, with the patent medicine firms providing the names and addresses of potential contacts along with the content requirements for the testimonials" (p. 80).

Patent medicine firms also collected consumer information through symptom blanks, which were surveys mailed to consumers that asked personal and health-related questions. The questions on symptom blanks "solicited demographic information (name, age, gender, marital status, occupation, weight, and height), while asking health-related questions such as: 'How long has your trouble existed?' 'What treatment have you had?' 'Have you had any other serious illness?'" (Robinson, 2012, p. 82). Companies claimed the information provided in the symptom blanks were used for diagnosis, but the information collected was also used for advertising purposes (Robinson, 2012, p. 75).

Historical businesses realized that people responding to surveys or being interviewed might not always provide truthful responses. To mitigate the issue of potential deception from respondents, businesses used several tactics including, "Aiding the respondent to remember," "Finding substitutes for embarrassing questions," and "Giving means of expression" ("The Technique of Marketing Research," 1937, p. 63). Aiding respondents to remember involved formulating questions that made it easy for customers to remember and provide an answer. For example, if an interviewer asked how often someone changed their razors in a month, the person might not remember ("The Technique of Marketing Research," 1937, p. 63). However, having

the interviewer re-phrase the question to ask how long a razor lasts might make it easier for the person to answer ("The Technique of Marketing Research," 1937, p. 63). A consumer might find certain questions harder to answer than others, either because the question requires remembering or the consumer found it embarrassing. Interviewers were required to identify problematic questions and ease any difficulty remembering or embarrassment by re-phrasing or asking new questions ("The Technique of Marketing Research," 1937, p. 66). With regards to giving means of expression, businesses wanted questions to be as easy as possible to answer. For example, an interviewer might display pictures of different variations of products and ask which one the customer liked the best ("The Technique of Marketing Research," 1937, p. 67). These tactics allowed interviewers, or business representatives, to receive more truthful answers, ultimately making the data collected more accurate and useful.

One common denominator between panels and juries, door-to-door surveying, interviewing, questionnaires, testing, and telephone inquiry is that consumers knew they were providing their personal information and opinions for market research. When asked questions in a panel setting, at your door by a company representative, being interviewed either in-person or through mailed questionnaires, sharing your opinion about certain window displays, or being phoned directly, consumers were aware they were answering questions for a business. Furthermore, while companies knew consumer answers might be skewed, they used the tactics described above to mitigate untruthful or misleading answers. Some businesses, however, developed new forms of market research that were much more covert and surreptitious, leaning more towards the surveillance of consumers rather than traditional market research.

The Pinkham Medicine Company was one company that engaged in covert market research. In addition to traditional market research techniques, such as questionnaires and

testing, the Pinkham Medicine Company used solicited consumer letters and what they called "the Erwin-Wasey Survey" to collect consumer information without the consumer's knowledge or consent to better market products. I argue that this covertness moves away from the idea of traditional market research and towards the idea of surveillance as a business tactic, a crucial business tactic in the 21st century for advertising platforms such as Google and Meta.

The Pinkham Medicine Company

The Pinkham Medicine Company, a patent medicine firm founded in 1875 by Lydia E. Pinkham (Pinkham), focused on providing remedies to women's ailments. Pinkham was born on February 9, 1819, in Lynn, Massachusetts, to Rebecca Estes and shoemaker Billy Estes (Danna, 2015, p. 2). From a young age, Pinkham was an activist; at the age of 16, she "became a charter member of the Lynn Female Anti-Slavery Society," a group also "heavily invested in a women's rights crusade" (Danna, 2015, p. 3). In addition to her activist values, Pinkham was highly educated for a woman at the time and became a schoolteacher (Danna, 2015, p. 5). In 1843, she married Isaac Pinkham, who worked many jobs, including shoe manufacturing, trading, and farming (Danna, 2015, p. 5). The couple had four children, although, sadly, their second child died in infancy (Danna, 2015, p. 8).

With a lack of medical treatments during the Victorian era, many families relied on home remedies to care for ill family members. Pinkham's herb-based elixir was a popular recipe in the community. Before incorporating the Pinkham Medicine Company, Pinkham made small batches of the elixir for her neighbours for free (Danna, 2015, p. 37). Pinkham's grandson claimed his grandmother created the recipe for the elixir herself (Danna, 2015, p. 37). During The Panic of 1873, a financial crisis in Europe and North America, Pinkham's family experienced financial difficulties (Danna, 2015, p. 37). Pinkham and her brothers decided to turn her homemade medicine-making into a business and in 1875, created the Lydia E. Pinkham Medicine Company.

While the product distinguished itself from others on the market by being for women only, the Pinkham Medicine Company's advertising tactics played a prominent role in its success.

The Pinkham Medicine Company's most popular product was Lydia E. Pinkham's Vegetable Compound (Vegetable Compound), a drinkable liquid that claimed to cure many symptoms, including menstrual pain (dysmenorrhea), nervousness, depression, sleeplessness, breathing issues, choking sensations, and 'fullness of the head.' The compound was made of natural herbs, such as unicorn root (also known as the colicroot plant), life root, black cohosh, pleurisy root, and fenugreek seed, and was 18 percent alcohol (Danna, 2015, p. 38). The Vegetable Compound was also available in tablet form, but its liquid form was more popular among women at the time. While the herbs included in the Vegetable Compound could help alleviate some symptoms, such as hot flashes associated with menopause, neither the liquid nor the tablets were the cure-all products the Pinkham Medicine Company claimed them to be (Barry, 2017).

Traditional Market Research by Patent Medicine Firms

Questionnaires

To market the Vegetable Compound, the Pinkham Medicine Company utilized traditional market research techniques, where consumers knew they were providing information for market research, such as completing questionnaires. The Pinkham Medicine Company sent questionnaires on the back of pamphlets, which were small books about various topics, such as cooking, health concerns, and parenting, mixed with advertisements for Pinkham Medicine Company products. The pamphlets were mailed directly to consumers' homes using a compiled direct mail list. The questionnaires contained questions for consumers to answer and return to Mrs. Pinkham. The Pinkham Medicine Company also included questionnaires in its product packaging for consumers to complete and return to the company. A 1953 article for *Markets of*

America called “The Package Insert as a Research Tool,” written by Charles H. Pinkham, Lydia Pinkham’s grandson and the Secretary and Director of Advertising Research at the Pinkham Medicine Company, outlined the goal of package inserts, saying, “One of the primary purposes of our package insert questionnaires, therefore, has been to tell us the characteristics of our consumers; their age, occupation, where they live, what they read and listen to” (Records, folder 733). Package inserts became the Pinkham Medicine Company’s main source of market research and were used to inform its advertising campaigns. Customers received small gifts for returning completed questionnaires, including sewing kits, lipstick mirrors, knives, flower sachets, bookmarks, pencils and key rings. The Pinkham Medicine Company started sending questionnaires to consumers in the early 1920s, and, according to Charles Pinkham’s 1953 article, “During the last 30 years we have received from consumers 100,000 filled-in questionnaires each year … a total of over 3,000,000” (Records, folder 733). Through its questionnaires, the Pinkham Medicine Company collected mass amounts of consumer information.

The Pinkham Medicine Company created different questionnaires each related to specific health problems. One questionnaire from the early 1950s, for example, was called the “Dysmenorrhea Questionnaire” and asked not only demographic questions about age, race, occupation, and relationship status but also personal questions such as “On which day do you have the most discomfort?”, “During what season, or seasons, do you have the most discomfort from monthly periods?” and “Before taking Lydia E. Pinkham’s Vegetable Compound, were your periods regular?” (Records, folder 2588). In addition to these questions, women were asked to review a list of symptoms and tick those they experienced before and after taking the Vegetable Compound. Another questionnaire called the “Menopause Questionnaire” also posed personal questions, such as “Have you stopped menstruating?” and “Do you take any other medicines for

‘Change of Life’?” (Records, folder 2588). Women were asked to select the symptoms they experienced from a list provided in this questionnaire as well. Both questionnaires state at the beginning that “Your answers to these questions will be kept confidential. They will be used for analytical purposes only” (Records, folder 2588). From these questionnaires, the Pinkham Medicine Company could identify the age groups that purchased Pinkham products most frequently as well as the occupations, educational background, race, and symptoms of its customers. The company could use the questionnaire answers to create averages, which it could then use to determine how and where to advertise the Pinkham Medicine Company’s various products to its best advantage (Records, folder 2588).

Others involved in patent medicine also engaged in mail-order marketing. G. H. Brinkler, for example, a self-proclaimed food expert who sold diet plans that claimed to cure any ailment, utilized mail-order techniques (“Nostrums and Quackery,” 1921, p. 268). Brinkler used testimonials in the booklets he mailed to consumers and attached documents called question lists. Like the Pinkham Medicine Company package inserts, the question lists were blank questionnaires that customers completed and returned to Brinkler in exchange for a diagnosis or treatment plan (“Nostrums and Quackery,” 1921, p. 268). Questions on this survey related to alcohol consumption, tobacco consumption, age, height, and any known health issues. Sending questionnaires to consumers was a common form of market research among patent medicine firms during this time.

Copy Testing

The Pinkham Medicine Company also conducted copy testing, a form of traditional market research, to test the effectiveness of its advertisements. Copy testing aimed to answer the following questions for the company after its ads were created: “But how good are they? Which is the best? Which layout and which headline copy appeal will prove to be the most effective?”

(Records, folder 729). According to a company document called “Measurement of Mass Advertising Effectiveness,” copy testing gave insight into “the type of consumer that is the best prospect. For example a copy test … made in media with nation-wide coverage … indicated that consumers in the south were better prospects than those in the north” (Records, folder 729). The Pinkham Medicine Company used copy testing to determine who and where the best prospective customers were and what kinds of advertisements were most enticing for them.

While exact copy techniques used by the Pinkham Medicine Company were not observed in the viewed records, reports from the company offered examples of how copy testing could be conducted (Records, folder 3125). Copy testing techniques mentioned in the Pinkham Medicine Company records included asking consumers through questionnaires or interviews which advertisements they found most effective. This provided the company with direct responses from the consumers. Other forms of copy testing were more discreet; the effectiveness of the ads could be tested “by using the mail order type coupon which offered a booklet explaining the use of the product, or a free sample of the product itself” (Records, folder 729). These coupons would be hidden in a body of text, such as a booklet or pamphlet, and the company recorded the sales that used coupons; the assumption being if customers used the coupon, they had looked through the booklet and the company deemed the advertising effective (Records, folder 729).

The Pinkham Medicine Company had a Testing Department designed to test the effectiveness of its advertisements created by its Advertising Department (Records, folder 3152). As stated in the Pinkham Medicine Company records, the Pinkham Medicine Company “tested hundreds of ads in order to discover the most effective size, shape and lay-out of the advertisement; the proper type faces to use and the advertising appeals which have produced sales at the lowest advertising cost” (Records, folder 3152). Copy testing was a prominent market research technique used by the Pinkham Medicine Company.

Questionnaires and copy testing provide examples of traditional market research used in the late 1800s and early 1900s. I use the term “traditional market research” to refer to research techniques that either did not collect personal data, as seen in the example of copy testing or that collected personal data in a direct, open way, as seen in the example of questionnaires. Traditional market research did not include secrecy or covertness but rather focused on the collection of information that directly related to improving the product or content of advertisements and advertising placement with the consumer being aware that the information was collected for those purposes. As Converse (2009) suggests in his chapter three title, “The Most Direct Line, Business: Market Research and Opinion Polling” (p. 87); the most common forms of market research were direct. Traditional market research involves companies directly asking consumers questions, sending questionnaires, or collecting and analyzing statistics. The method is direct, and without secrecy or deception that the company is collecting the data to improve its advertising and products. However, the Pinkham Medicine Company engaged in not only traditional market research but also surveillance-oriented market research.

Covert Market Research by Patent Medicine Firms

While the Pinkham Medicine Company used the traditional market research techniques described above, the company also engaged in more clandestine market research, such as solicited letters from consumers and undercover surveying. I use the term “covert market research” to describe the personal data collected by the company through solicited letters and undercover surveying. Covert market research differs from traditional market research in that rather than directly asking consumers questions about products or certain brands, it relies on surveillance and secrecy to obtain personal information from consumers. I argue that covert market research is more reminiscent of elements of modern surveillance capitalism rather than

those of traditional market research. This section will discuss two examples of how the Pinkham Medicine Company engaged in surveillance: solicited letters and what the company called the Erwin-Wasey Survey.

Solicited Letters and Letter Brokers

During the late 1800s, most women did not work outside the home, and few women owned their own businesses, but in Pinkham's case, being a woman and creating medicine for women benefited her and her business. The medical treatments offered to women in the Victorian era were often unhelpful, "barbaric, horrific, and misogynistic" (Danna, 2015, p. 19). Women were desperate to be heard and treated for their medical issues in ways different from those offered by the male doctors of the time (Danna, 2015, p. 22). Pinkham worked to fill this market gap by advertising her company, and herself, as willing to listen to women and provide them with personalized remedies. Pinkham claimed, "Only a woman can understand a woman's ills" (Danna, 2015, p. 23). To give women an opportunity to be heard and treated by a woman, the Pinkham Medicine Company encouraged consumers to write letters to Mrs. Pinkham discussing their ailments in detail so the company could provide health advice in return.

The Pinkham Medicine Company mailed pamphlets to consumers that discussed topics, such as cooking and women's health issues. Many of these pamphlets included a call to action encouraging consumers to send letters about their ailments to Mrs. Pinkham. An 1893 pamphlet titled "Women's Beauty; Her Peril; Her Duty" offered information on various health issues such as "inflammation of the ovaries" and "absence of the menses" so that women could be beautiful from the inside out (Records, folder 2416). Pinkham writes on the bottom of every page, "When uncertain, write to Mrs. Pinkham, giving age, symptoms, etc., and enclose two-cent stamp for reply" (Records, folder 2416). This pamphlet reiterates Pinkham's competitive advantage: "No man can ever properly interpret the symptoms, for *he has never experienced them:* while to a

woman *of equal learning* those symptoms tell their story as the hands of a watch tell the time [Emphasis included]" (Records, folder 2416). Pinkham's pamphlets utilized the narrative that women would get better care and treatment only through other women; thus, writing to businesswoman Mrs. Pinkham was considered more effective than visiting a male doctor. Towards the end of the pamphlet, it exclaims, "No More Doctors for Me! A woman best understands a woman's ills" (Records, folder 2416). Pinkham was not a doctor and had no formal medical training (Danna, 2015, p. 30).

The Pinkham Medicine Company's advertising tactic of projecting female solidarity benefited the company as thousands of women wrote to Mrs. Pinkham disclosing personal information. The 1893 pamphlet explains that "Mrs. Pinkham treats *many hundred* cases a week by letter, *and successfully* [Emphasis included]" and "There is no need for false modesty in the matter, for the answer will come from one of her own sex" (Records, folder 2416). Women shared personal details about their health issues and other aspects of their lives, believing Mrs. Pinkham, as a woman, would understand and give effective advice. The pamphlet continues, "Tens of thousands of women, through this system of correspondence, have been taught how to obtain and maintain perfect health" (Records, folder 2416). Pinkham positioned herself as someone who was trustworthy and who understood women's issues, making women more likely to write to her including their personal details and experiences. Not surprisingly, the supposed solution Pinkham proposed in her letters responding to many women's ills was Lydia E. Pinkham's Vegetable Compound.

Another Pinkham Medicine Company pamphlet called "Help for Women" from 1910 includes pages of testimonials from women who used Lydia E. Pinkham's Vegetable Compound. This pamphlet also asks consumers to write letters to Mrs. Pinkham, stating, "Write to Mrs. Pinkham, Lynn, Mass., on the troubles connected with young womanhood. Write to Mrs.

Pinkham on the ailments most prevalent in middle age. Write to Mrs. Pinkham on the ills that attack women of mature years" (Records, folder 2427). The Pinkham Medicine Company also solicited letters by promising to send free gifts, such as a sewing kit, to those who wrote letters. The Pinkham Medicine Company solicited letters since its inception in 1875 and continued to solicit letters well into the 1900s; with over 50 years of receiving letters from consumers, Pinkham not only directly told consumers to purchase Lydia E. Pinkham's Vegetable Compound to cure their ailments but also gained vast amounts of information on the demographics and lives of her customers through these solicited letters. One letter from a customer in 1877 states:

> Dear madam: for the last seven years I have suffered with falling of the womb. I was unable to walk about the house without suffering intense pain. I had tried different kinds of treatment and had almost given up in despair when I commenced taking your vegetable compound. I have taken two tablets and I can already walk three miles without any difficulty. I recommend it to all women especially afflicted and am willing to give information to any one in regard to the benefits I have experienced from it (Records, folder 3133).

While this letter provides some insight into the consumer's life, other letters provide more personal details, such as this letter sent to Mrs. Pinkham in 1947:

> We have a fine old 12 room house, very comfortable, don't owe a dime anywhere, why drag them around [referring to his six kids]. We have to have money and where I go they have it. At 67, I can't expect to keep it up forever, maybe 7 yrs [*sic*] more [referring to the man traveling for work]. That depends on your Bottles to some extent and to my own good habits. I rather think that The Wife might like the Sewing Kit. (it's not medicine.) I tell her, Your Body (temple if you prefer) is just one WONDERFUL Chemical Lab. and when you have the right chemicals everything works smooth and if you lack something, you'v [*sic*] just got to make it up some way or other (Records, folder 3133).

The above letter, sent by a man responding to a Pinkham Medicine Company ad offering a free sewing kit to those who wrote to Mrs. Pinkham, includes personal details unrelated to health ailments. The man provides information about his home, debt, income, age, and children. Such information helped the Pinkham Medicine Company to know its consumers, which ultimately helped it to create more effective advertisements.

In an undated inter-office report called “Measurement of Mass Advertising,” the Pinkham Medicine Company asserts that once advertisers “got started on a search for their typical consumer, their market research activities knew no bounds. They set out to discover in which income bracket their best prospects were found. Did their typical consumers own automobiles? Were their homes wired for electricity? Did they have telephones?” (Records, folder 729). Information provided in letters often answered these questions. While solicited letters were advertised by the Pinkham Medicine Company to be confidential and solely for diagnosis purposes, the Pinkham Medicine Company also used the information provided in the letters to gain further insight into its consumers for its own advertising purposes.

Other patent medicine firms also solicited letters from consumers. Gorham’s Home Treatment for Catarrh (Gorham’s Home Treatment), a patent medicine firm that created products to treat asthma and catarrh (mucus in the back of the throat), solicited letters from its customers. Advertisements for Gorham’s Home Treatment stated, “Do not delay a moment, but send now for the Free Package and my book, both of which will be mailed in plain wrapper. Be sure and mention your disease” (*Nostrums and Quackery*, 1921, p. 280). Like the Pinkham Medicine Company, Gorham’s Home Treatment enticed its customers to send letters that included personal information in exchange for a gift without revealing all the purposes for which the information was collected and would be used.

An article by Charles H. Pinkham, published in *The Advertiser* in 1950, states, “It was surprising to see the number of women who did not mind having us print their letters” (Records, folder 741). While Pinkham advertisements claimed to keep letters confidential, some women indicated in their letters they could be used for advertising purposes (Records, folder 741). These letters were published in Pinkham Medicine Company pamphlets for prospective customers to learn about the success experienced by women who used Lydia E. Pinkham’s Vegetable

Compound. One pamphlet called “Women’s Letters,” published in 1914, includes pages of letters written by women to Mrs. Pinkham. The pamphlet states, “Your letter will be received, open, read, and answered by a woman, and held in the strictest confidence. Never have we published or used a letter without the written consent of the writer” (Records, folder 2431). Although some women who used the Vegetable Compound provided permission for their letters to be published, the Pinkham Medicine Company promised women that the information they provided in their letters would be safe and confidential (Records, folder 2431).

The 1950 article also notes, “The letters that women wrote to her [referring to Lydia Pinkham] in her lifetime were letters from *friends* [Emphasis included], not customers. She was interested in their troubles … and many of these troubles had nothing to do with their health” (Records, folder 741). The information people provided in solicited letters was often outside the scope of Lydia E. Pinkham’s Vegetable Compound; women discussed issues they experienced in their lives, believing Pinkham would have meaningful non-health related advice to offer or seeking casual conversation as displayed in the 1947 letter set out above. Charles Pinkham stated the letters and testimonials “played an important part in building sales” (Records, folder 741). Letters and testimonials created a point of discussion for women, a discussion that centered around Pinkham Medicine Company products. Charles Pinkham explained that “Pinkham testimonials were also the subject of discussions by neighbors over the back fence, by groups of women at sewing circles and church socials … even by men in barber shops and saloons” (Records, folder 741). The Pinkham Medicine Company used the personal information provided in these letters to its benefit, not only to better know its consumers and spark discussion but also to sell and trade to letter brokers (Robinson, 2012, p. 86).

Documents compiled by the American Medical Association in 1921 indicate that the solicited letters that Gorham’s Home Treatment collected were also sold to letter brokers, a

common practice for patent medicine firms at the time (*Nostrums and Quackery*, 1921, p. 279). Letter brokers were companies that compiled information contained in solicited letters and questionnaires originally collected by other companies. Letter brokers sold the data they compiled to other patent medicine firms to use in the development of their direct mailing campaigns (Resor, 2019, p. 36). Letter brokers collected thousands of solicited letters and questionnaires from patent medicine firms. Gorham's Home Treatment sold or rented more than 13,000 letters from customers to letter brokers in 1910 and 1911 (*Nostrums & Quackery*, 1921, p. 279). Gorham's Home Treatment first categorized the solicited letters based on the type of illness or complaint and then sold or rented the solicited letters to letter brokers (Resor, 2019, p. 36). Pinkham Medicine Company also sold its solicited letters to letter brokers. Many patent medicine firms claimed to keep the solicited letters they received "highly confidential." For example, many of Pinkham's pamphlets stated, "Be sure of the strictest confidence. Mrs. Pinkham never betrays trust. You can rely on her implicitly" (Records, folder 2420). The information in these personal letters was not kept confidential; letter brokers not only received access to personal health information but also sold access to the letters to other companies without the explicit consent of the letter writers. Selling letters to and buying letters from letter brokers was a covert market research technique because letter writers were unaware that their letters were sold to third parties.

The personal, non-health-related information provided in these letters shifted from the traditional market research of the time which gathered information from consumers in direct ways to the adoption of the idea of data as a commodity. Patent medicine firms realized they could sell the data they collected from their customer letters to develop better advertisements to increase sales and generate greater profits. In addition, patent medicine firms could purchase the data compiled by letter brokers using the solicited letters of other companies. By purchasing this

data, patent medicine firms gained information on potential new customers, which the firms could then use to better target the potential new customers in mail-order campaigns. Robinson (2012) describes the solicited letters purchased from letter brokers as "'data' facilitated forms of direct marketing" and explains that they benefited patent medicine firms by "allowing firms to target by mail those people most likely to be interested in a given remedy and not waste time and money on healthy people or those suffering from other illnesses" (p. 74). The Pinkham Medicine Company's advertisements relied on solicited letters for testimonials to include in its ads and for general information on consumers it could use to better target the ads. Data collected and sold through the solicited letters shows the introduction of data as a commodity that could be bought and sold without the consent of the letter writers to create more effective and targeted marketing strategies.

Letter brokers of the 19th and 20th centuries share similarities with data brokers of the 21st century. According to Mishra (2021), "Data Brokers are faceless companies built in the shadows that collect troves of consumer data but individuals have probably never heard of them, nor directly interacted with them" (p. 396). Using public records and internet platforms, such as Google, Instagram, and Facebook, data brokers can access vast amounts of information about potential consumers, which data brokers compile to create individual profiles of millions of people to sell to other companies (Mishra, 2021, p. 398). While the information data brokers collect and how they use it may improve the consumer experience by showing more personalized content, the business concept of data brokers poses privacy concerns. Data brokers collect highly personal information and the inferences drawn from this data often perpetuate harmful stereotypes that negatively impact individuals and society (Mishra, 2021, p. 401). Data brokers aim to sell the profiles they create, with the risk that they may sell the profiles to companies that will use the data in unethical ways. Lamdan (2022) states, "Nobody monitors how data brokers'

products are used to ensure they're being used for their assigned purpose" (p. 43). The data can be sold to anyone and used for anything.

Letter brokers and data brokers have similar business models and goals. Robinson (2012) provides the example of the Guild Company of New York, a letter broker "with 'millions' of letters available for sale in batches of 1,000 and up" (p. 86). Letter brokers created profiles in a similar way to data brokers. Letter brokers organized their profiles by medical condition, "including, asthma, consumption, deafness, rheumatism, and syphilis" (Robinson, 2012, p. 86). Letter brokers and data brokers both offer large amounts of information that is often used for advertising purposes. The letter brokers even provided examples of how companies could use the information from the letters for their marketing campaigns (Robinson, 2012, p. 86). The collection and selling of letters by patent medicine firms shows that data and personal customer information was as crucial to business success in the late 1800s and early 1900s as surveillance capitalism is to corporations in the 21st century.

The collection of solicited letters and the selling of them to letter brokers does not fall within the scope of traditional market research. Consumers writing to Mrs. Pinkham did not know that the information they provided in their letters would be used for purposes other than diagnosis and personal advice from Mrs. Pinkham. As Charles Pinkham explains, data provided from consumers allowed the company to "beam our advertising more directly at them" (Records, folder 733). While the records viewed did not explicitly explain how the advertisements were "beamed," the phrase "beam our advertising" seems to express an idea similar to targeting advertisements to specific desired groups, a common marketing tactic of the 21st century. The Pinkham Medicine Company benefitted from the information provided in solicited letters not only by developing more effective ads for its direct-mail campaigns but also by selling its solicited letters to letter brokers, who sold the data to other patent medicine firms to use for their

direct mail campaigns. This type of data collection was covert and exploitative. There is a correlation between the marketing practices of the late 19th and early 20th centuries and the modern predictive algorithms used in targeted ads from Google and Meta; advertising relies on the surveillance of consumers and the secret collection of personal data for advertising purposes with the goal of manipulating consumer behaviour. While patent medicine firms did not have predictive algorithms, they could use the deductions and predictions that came from the personal consumer information collected through surveillance.

Zuboff (2019) suggests that before companies such as Google and Facebook, "Advertising had always been a guessing game: art, relationships, conventional wisdom, standard practice, but never 'science'" (p. 77). However, the information provided by the solicited letters allowed the Pinkham Medicine Company and other patent medicine firms who utilized these mail-order marketing techniques to "beam," as Charles Pinkham described it, their advertisements at the most opportune groups. While the patent medicine firms of the late 19th and early 20th centuries lacked the technologies modern companies such as Google use to target advertisements with predictive algorithms, the firms used the information they collected from mail-order marketing for "analytical purposes," as stated on Pinkham Medicine Company documents (Records, folder 2588). Although the analytics of patent medicine firms, including statistics and human deduction, were simpler than Google's analytics of user information, the goal was the same: to collect as much consumer information as possible that could be used to target advertisements to influence consumer behaviour. Zuboff posits, "The idea of being able to deliver a particular message to a particular person at just the moment when it might have high probability of actually influencing his or her behavior was, and had always been, the holy grail of advertising" (p. 78). This was the goal of the Pinkham Medicine Company in the late 1800s, and

the company correlated the secretive collection of consumer information with its ability to achieve this goal.

Lauer and Lipartito (2021) argue that “consumer surveillance was from the very start a constitutive feature of commercial media and where large-scale publishing operations and small-time mail-order hustlers were among the pioneers of surveillance capitalism” (p. 47). While Lauer and Lipartito do not mention the mail-order operations of patent medicine firms, they provide the example of publishing houses of the late 1800s that engaged in mail-order operations similar to those of patent medicine firms. E. C. Allen & Co., an American publisher in the 1880s, solicited and bought consumer letters, which “were the raw ingredients that made up the lists that mail-order houses used for mass solicitations” (Lauer & Lipartito, 2021, p. 57). The mailing information obtained from the consumer letters was of interest and “characteristics such as gender and class were incorporated into the letter brokers’ calculus” (Lauer & Lipartito, 2021, p. 57). The mail-order techniques of publishers during this period were the same as the mail-order techniques of patent medicine firms. Lauer and Lipartito (2021) state, “Along with the growing life insurance companies and consumer credit bureaus of the day, mail-order publishers like Allen were in the business of transforming paper and facts into new forms of commoditized identity” (p. 63). For historical businesses, consumer information collected through consumer surveillance was a commodity.

Lauer and Lipartito (2021) continue by saying that the “willingness to not just hoard personal information but trade in it stemmed from a qualitatively different understanding of information’s capacity to yield profits” (p. 63). While surveillance capitalism developed rapidly with the internet and predictive algorithms in the 21st century, companies in the 1800s understood the benefit of collecting consumer information through secretive means for advertising purposes and actively tried to collect as much information on their consumers as they

could to better target their advertising and increase their profits. Zuboff posits that “Google’s invention of targeted advertising paved the way to financial success, but it also laid the cornerstone of a more far-reaching development: the discovery and elaboration of surveillance capitalism” (p. 65). Although Google was the first to surveil consumers and collect consumer information from the internet and analyze it with predictive algorithms, patent medicine firms collected information in covert ways from consumer letters and surveys and analyzed that data using statistical methods and human deduction; the technologies may be different, but the thought process and motives for the data collection and its use are quite similar. Perhaps companies of the late 1800s, such as the Pinkham Medicine Company, laid the foundation for modern surveillance capitalism, and modern companies such as Google and Facebook utilize this business method at extreme levels.

The Erwin, Wasey & Co. Survey

In the late 1930s, the Pinkham Medicine Company hired the advertising agency Erwin, Wasey & Co. (Erwin-Wasey) to help with the firm’s advertising activities. According to a 1940 interoffice Progress of the Advertising Department Report (progress report), the Pinkham Medicine Company hired Erwin-Wasey because of its experience in the drug industry and its dedication to Pinkham Medicine Company’s success (Records, folder 3152). The progress report explains that “the agency executives were ready to co-operate to the fullest extent in supplying us with the co-operation and the type of personnel that was necessary for the proper handling of our account” (Records, folder 3152). Erwin-Wasey first offered the Pinkham Medicine Company typical marketing streams, such as radio. Starting in September 1937, Erwin-Wasey obtained the services of the radio station Voice of Experience to broadcast advertisements for Pinkham products (Records, folder 3152). The progress report claims that these radio broadcasts were effective, but after two years, the company felt it had saturated that audience and wanted to

explore alternative marketing methods (Records, folder 3152). With Erwin-Wasey willing to cooperate to the "fullest extent," the Pinkham Medicine Company expanded its marketing research to include experimental, and perhaps unethical, methods as described below.

The progress report highlighted the Pinkham Medicine Company's well-established Advertising Department that conducted "a great deal of testing," marketing methods with which the Pinkham Medicine Company claimed Erwin-Wasey was not familiar (Records, folder 3152). The Pinkham Medicine Company felt the New York Research Department of Erwin-Wasey would not meet the company's needs (Records, folder 3152). To remedy this issue, Erwin-Wasey brought a research director, Julian Snyder, from its England branch to assist with the account. Snyder previously conducted advertising research for Erwin-Wasey's Chicago office with some success. With a newly revamped Research Department, the Pinkham Medicine Company and Erwin-Wasey were prepared to find more effective ways to advertise Pinkham products.

Through solicited letters, completed questionnaires, and copy testing, strategies the company had used for decades, the Pinkham Medicine Company knew the benefit of using market research and consumers' personal information to inform its advertising. However, the company felt the solicited letters, completed questionnaires, and copy testing reached only the market that already purchased and used Pinkham products; the Pinkham Medicine Company wanted information that related not only to their existing consumers but also to potential new consumers (Records, folder 2588). As another form of market research to learn about the untapped market, the Pinkham Medicine Company and Erwin-Wasey began to implement surveys. To create more effective advertisements, the Pinkham Medicine Company wanted the surveys to answer the following questions: 1) "Is Their [referring to all women, not just current customers] Opinion Favorable or Unfavorable?", 2) "What Reasons Do Women Give for Not Buying Pinkham Products?", and 3) "What is the Attitude of College Girls toward Pinkham

Products?" (Records, folder 2589). To answer these questions, in 1941, the Pinkham Medicine Company and Erwin-Wasey surveyed 1,381 women in New York City. A memo called "Market Research Analysis of Existing Data: Part I" (the memo), circulated by Pinkham Medicine Company's Research Department, outlined how the survey was conducted. The survey method departed from traditional research methods, such as ringing doorbells, and instead employed what the memo called "girl investigators" who dressed as nurses and were "stationed at counters displaying women's hygienic products" in pharmacies (Records, folder 2588). The Pinkham Medicine Company and Erwin-Wasey believed this undercover research method provided "a much truer picture of consumer buying reactions" when compared to more typical door-to-door surveying (Records, folder 2588).

However, the "girl investigators" were not nurses, but rather were young women dressed as nurses with a view to inspiring confidence to encourage other women to share information they might not have shared with perceived surveyors. The memo suggests that the "girl investigators" stood in front of displays of female hygiene products to "put the consumer's mind on the subject to be discussed, making it easy for the "nurses" to open the discussion without embarrassing preliminaries" (Records, folder 2588). The "nurses" were required to start conversations with women at the pharmacies to gain information on the health issues the women experienced, the products they used, and their feelings about certain companies (Records, folder 2588). These women thought they were talking with healthcare professionals, not undercover surveyors gathering information for the Pinkham Medicine Company. The "girl investigators" asked questions such as "Do you ever have much trouble during your menstrual periods?", "Do you take anything?", "What do you use?", and "Did you ever take Lydia Pinkham?" (Records, folder 2588). The "girl investigators" would not ask the women to complete any questionnaire but would simply have a conversation with them. Once the women left the store, the "girl

investigators" would "write down all comments on the product" (Records, folder 2588). The Pinkham Medicine Company conducted these surveys in 20 pharmacies in Manhattan, Brooklyn, Bronx, and Queens, New York (Records, folder 2588).

From these surveys, Erwin-Wasey was able to better determine the age groups that used Pinkham products the most and the least, concluding that women in their 20s were Pinkham's weakest market. Through the survey, Erwin-Wasey also gained insight on the income of consumers, finding, "More customers were recorded in the lower income groups than in the upper brackets" (Records, folder 2588). The survey also found that "stay-at-homes" composed most of the sample, indicating that women who did not work outside the home were more likely to purchase Pinkham products (Records, folder 2588). From the data collected, the Pinkham Medicine Company and Erwin-Wasey could cater their advertisements to desired age groups, stay-at-home wives and mothers, and women in lower income brackets. The information collected using this experimental surveying method benefited the company for decades. Even though the experiment took place in 1941, according to the memo, the Pinkham Medicine Company still used the information garnered from it in its advertising campaigns as late as 1954 (Records, folder 2588).

The Pinkham Medicine Company's products included Lydia E. Pinkham's Vegetable Compound (discussed above), which helped relieve menstrual pains, and Lydia E. Pinkham's Sanative Wash, a product for feminine hygiene. During the late 19th and early 20th centuries, many issues regarding women's health and hygiene, specifically those concerning menstruation, were considered taboo (Strange, 2001, p. 248). Strange (2001) asserts that people living in the Victorian era perceived menstruation as "unpleasant, distasteful and—ideally—socially invisible," and women were urged to keep discussions concerning these topics discreet (p. 248). As menstruation was a taboo topic for society during this time, having "girl investigators"

dressed as nurses made women feel comfortable disclosing personal information in more socially accepted circumstances. Women were more likely to share personal information about their menstrual cycles and overall health with healthcare providers such as doctors and nurses than with strangers, such as Pinkham Medicine Company representatives. As Erwin-Wasey's report suggests, "This unique method of research made possible a far more accurate and valuable picture of buying reactions for Lydia Pinkham products than might be obtained by conventional methods" (Records, folder 2588). This survey went beyond traditional market research, where consumers knew they are giving their opinions and information to a company and moved towards covert market research and the concept of consumer surveillance as a technique to improve marketing efforts.

Zuboff (2019) provides eight definitions for the term "surveillance capitalism." The first definition is "A new economic order that claims human experience as a free raw material for hidden commercial practices of extraction, prediction, and sales" (Zuboff, 2019). While the use of modern predictive algorithms by conglomerates such as Google and Meta highlight the practice of data collection for commercial uses on a massive scale, Zuboff's first definition also applies to the data collection practices of patent medicine firms. The Erwin-Wasey survey embodies the "hidden commercial practices" identified in Zuboff's definition; the experiment of having "girl investigators" go undercover as nurses to collect personal information for advertising purposes exemplifies the use of secretive surveillance practices to boost sales. Although historical patent medicine firms did not have the technology and predictive algorithms that are used in surveillance capitalism today, the motives behind their data collection were similar to those of modern corporations engaging in surveillance capitalism.

Srnicek (2017) explains the business model of advertising platforms, such as Google and Meta, "which extract information on users, undertake a labour of analysis, and then use the

products of that process to sell ad space" (p. 49). This process is similar to the Pinkham Medicine Company's advertising process. The company collected consumer information through questionnaires, copy testing, solicited letters, and surveys, analyzed that information, created business reports, such as the "Market Research Analysis of Existing Data" report, and then used that information to develop and better target its advertisements. The way modern corporations extract user information involves the internet and algorithms, while patent medicine firms, on the other hand, adopted an analog approach to data collection. The way patent medicine firms and modern corporations analyzed the information collected differs as well. In the 21st century, predictive algorithms make data analysis easier, faster, and more accurate. The analysis of data by patent medicine firms, by contrast, was much simpler, conducted manually, and provided fewer predictive insights. For both historical and modern examples, however, the data was used for the same purpose, to make advertising more targeted and effective. The data collection practices of patent medicine firms, such as the Pinkham Medicine Company, show the initial building blocks of modern surveillance capitalism. While differences exist between the surveillance of consumers by patent medicine firms and modern advertising platforms, the process of using personal data to target advertising and manipulate behaviour is evident in both. The Erwin-Wasey survey demonstrates the beginnings of the surveillance capitalist mindset.

The Erwin-Wasey survey not only collected statistical information from consumers in a surreptitious way but also collected information on consumer behaviour, such as facial expressions. Erwin-Wasey instructed the "girl investigators" to take note of women's facial expressions when asked about Lydia Pinkham products; they were told to see if the women had a "favorable," "unfavorable," or "humourous" reaction (Records, folder 2588). In "Market Research Analysis of Existing Data: Part III," the Pinkham Medicine Company writes, "The interviewers [referring to the "girl investigators"] were instructed to record immediately after

completion of each interview whether the respondent appeared to be favorably or unfavorably inclined towards the product or whether her attitude was more or less neutral" (Records, folder 2589). To make this conclusion the "girl investigators" were asked to "note carefully the expressions on the face of the buyer" (Records, folder 2588). The Pinkham Medicine Company's 'emotional testing' by recording and analyzing the facial expressions of consumers based on specific conversational cues seems similar to the 'emotional testing' conducted by Facebook.

In 2012, Facebook conducted a mood manipulation experiment in which it showed happy or uplifting content to some users and depressing content to other users. The purpose of the study was to better understand whether content shown in a Facebook feed influenced consumer emotion and posting behaviour. Facebook collected data on user's emotions to see if they could use that data to its benefit. While Facebook claimed that "no unnecessary collection of people's data" occurred, the information Facebook gained from the experiment allowed them to understand people's reliance on and connection to Facebook content, which provided greater insight into how Facebook could use that connection to its benefit to sell ad space ("Facebook emotion experiment," 2014). If selected content shown by Facebook influenced a user's emotions in a predictable way, then so too could advertisements.

An article published in *Forbes* in 2014 asked an important question: "Is it okay for Facebook to play mind games with us for science?" (Hill, 2014). A similar question can be asked in relation to the Erwin-Wasey survey: Was it acceptable for the Pinkham Medicine Company to manipulate or play mind games with its consumers to enhance its advertising? Facebook explicitly tried to manipulate consumers by influencing their emotions with specific targeted content. While the Pinkham Medicine Company may have viewed its actions only as a new form of market research, the company manipulated consumers to collect their personal information and recorded consumer behaviour to improve its products and advertising. The similarities

between the data collection by patent medicine firms and the surveillance capitalism of modern corporations appears evident. Behavioural information and perceived emotions were useful for both the Pinkham Medicine Company and Facebook. The Pinkham Medicine Company and Facebook both realized the benefit of surreptitiously monitoring human behaviour and emotions for advertising purposes.

Secrecy plays a prominent role in the success of historical and modern data collection methods. In his book *Means of Control*, Byron Tau (2024) points out the power of secrecy, claiming that the success of governments and companies that collect mass amounts of data "lies in the secrecy" (p. 184). Tau (2024) questions whether internet users "know they were signing up for a system where governments and corporations would use the means of delivering advertising for manipulation and control" (p. 187). While users of Google and Meta products must accept privacy policies before engaging with the platforms, Tau claims these policies are "mind-numbingly complicated" (p. 193). Even if people read these policies entirely, they are often still unaware of the full extent of what personal data these companies collect and how they use it. This covertness benefits the companies; users feel they can act normally on the platforms and the companies can base their analysis on genuine consumer behaviour. Zuboff (2019) also highlights the importance of secrecy to companies such as Google and Meta, stating, "The last thing Google wanted was to reveal the secrets of how it had rewritten its own rules and, in the process, enslaved itself to the extraction imperative" (p. 88). Google's mass data extraction remains successful because of its covertness. If users knew the full extent of the data-collecting methods, users may not feel comfortable sharing as much online. The same can be said of the Pinkham Medicine Company.

The Pinkham Medicine Company and Erwin-Wasey knew people were more likely to provide information if the method of data collection and how it would be used was covert.

Zuboff (2016) suggests “Capitalism has been hijacked by surveillance” (p. 3). Clandestine pursuits, such as watching people, collecting personal information, and monitoring behaviour, have become the main activities companies engage in to generate greater profits. Zuboff (2016) says, “Surveillance capitalism is a novel economic mutation bred from the clandestine coupling of the vast powers of the digital with the radical indifference and intrinsic narcissism of the financial capitalism” (p. 3) While Zuboff focuses on the role of digital technologies coupled with surveillance, one question remains: Can surveillance capitalism, or something similar, exist without the use of predictive algorithms or artificial intelligence? Without AI, which helps predict consumer behaviour, does the information collected by historical companies exist as simply market research? The methods used by the Pinkham Medicine Company and Erwin-Wasey go beyond traditional market research and reveal the beginnings of surveillance as a crucial business tactic.

Conclusion

While the idea of mass data collection and the use of the information gathered appears to be a new phenomenon with the onset of Big Tech, historical businesses such as patent medicine firms understood the importance of surveillance and personal data collection for advertising purposes much earlier in the late 1800s. Patent medicine firms collected data through traditional market research including mail-order questionnaires and copy testing as well as through covert market research including solicited letters and surveys (such as the Erwin-Wasey Survey). Through its use of covert market research, the Pinkham Medicine Company demonstrates how historical businesses applied ideas of surveillance capitalism to gather as much consumer data as possible to inform its advertising campaigns. While the Pinkham Medicine Company’s use of personal data may not have manipulated consumers to the same extent as modern companies

such as Google and Meta, its covert use of personal data to influence consumers to act in ways that favoured its business and increase its profits was evident as early as 1875.

Analyzing the advertising and data collection activities of historical patent medicine firms not only provides a history of surveillance as a business strategy but also helps to trace the beginnings of surveillance used for personal data collection to influence buying behaviour. While consumers of the late 1800s and early 1900s were unaware of patent medicine firms' use of personal data for advertising purposes, most users today, by contrast, are aware of Google and Meta's targeted advertising business model. However, the full extent of modern data collection and its use is often unknown. If patent medicine firms collected personal data using surveillance and covert means based on analog methods, then how much surveillance and personal data collection can modern Big Tech companies acquire using new technologies? This paper helps to highlight the covertness of personal data collection through historical and modern examples. Consumers must decide how much personal information they are willing to share with companies, knowing that their personal information is used in ways to benefit corporate actors, not to benefit them or society at large. Additionally, the examples explained in this paper demonstrate a need for stronger regulation of surveillance of consumers by corporate actors for advertising purposes.

References

Albrecht, K. A. (2018). *From Cure-alls to Calcium Tablets: A Comparative Semiotic Analysis of Advertisements for 19th and 20th Century Patent Medicines and Contemporary Dietary Supplements.* ProQuest Dissertations Publishing.

Barry, R. R. (2017, November 22). *Was Lydia E. Pinkham the queen of quackery?*. JSTOR Daily. https://daily.jstor.org/was-lydia-e-pinkham-the-queen-of-quackery/

Burt, E. V. (2012). From “True Woman” to “New Woman”: An Analysis of the Lydia Pinkham “Animated Ads” of 1890. *Journalism History, 37*(4), 207–217. https://doi.org/10.1080/00947679.2012.12062861

Constantiou, I. D., & Kallinikos, J. (2015). New games, new rules: Big data and the changing context of strategy. *Journal of Information Technology, 30*(1), 44-57. doi:https://doi.org/10.1057/jit.2014.17

Converse, J. M. (2017). *Survey Research in the United States: Roots and Emergence 1890-1960.* (First edition.). Taylor and Francis.

Danna, S. R. (2015). *Lydia Pinkham: The face that launched a thousand ads*. Rowman & Littlefield Publishers, Incorporated.

Dixon, W. E. (1910). Proprietary, Patent, and Secret Remedies. *Journal of the Royal Society of Medicine*, *3*(Ther_pharmacol), 82–90. https://doi.org/10.1177/003591571000301726

Francom, S. (1996). Pharmacy Records at the Archives of Ontario: Their Form, Content, and Value for Research. *Canadian Bulletin of Medical History*, *13*(1), 151–157. https://doi.org/10.3138/cbmh.13.1.151

Laird, P. W. (2020). *Advertising Progress: American Business and the Rise of Consumer Marketing* (Vol. 14). Johns Hopkins University Press. https://doi.org/10.1353/book.72714

Lamdan, S. (2022). *Data Cartels: The Companies That Control and Monopolize Our Information*. Redwood City: Stanford University Press. https://doi-org.libaccess.lib.mcmaster.ca/10.1515/9781503633728

Lauer, J. (2017). *Creditworthy: a history of consumer surveillance and financial identity in America*. Columbia University Press. https://doi.org/10.7312/laue16808

Mishra, S. (2021). The dark industry of data brokers: need for regulation? *International Journal of Law and Information Technology*, *29*(4), 395–410. https://doi.org/10.1093/ijlit/eaab012

Nostrums and quackery: articles on the nostrum evil, quackery and allied matters affecting the public health. (1921). American Medical Association.

Petty, R. D. (2019). Pain-Killer: A 19th Century Global Patent Medicine and the Beginnings of Modern Brand Marketing. *Journal of Macromarketing*, *39*(3), 287–303. https://doi.org/10.1177/0276146719865770

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Pinkham Pamphlets. “Woman’s Beauty, Peril, Duty.,” 1893. MC 181, folder 2416. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Pinkham Pamphlets. “Help for Women.,” 1910. MC 181, folder 2427. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Testimonial letters, 1877; 1947. MC 181, folder 3133. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; “Measurement of Mass Advertising Effectiveness.” A Primer for Businessmen. n.d. MC 181, folder 729. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; “Testimonial advertising played important part in building sales for LEP,” 1950. MC 181, folder 741. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Pinkham Pamphlets. “Women’s Letters.,” 1914. MC 181, folder 2431. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Pinkham Pamphlets. “Treatise on the diseases of women.,” 1901; 1904; 1907; 1908. MC 181, folder 2420. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; “Lydia Pinkham. The Package Insert as a Research Tool.,” 1953. MC 181, folder 733. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Research Department: "Preliminary Analysis of Questionnaire Questionnaires.", 1954. MC 181, folder 2588. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Memos on the history and progress of the advertising dept. and of sales., 1940. MC 181, folder 3152. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Research Dept. “Market Research Analysis, Pt. II,” 1954. MC 181, folder 2589. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Records of the Lydia E. Pinkham Medicine Company, 1776-ca.1985; Research Department: "Market Research Analysis of Existing Data: Part I. Who Are the Consumers?," 1954. MC 181, folder 2588. Schlesinger Library, Radcliffe Institute, Harvard University, Cambridge, Mass.

Resor, C. W. (2019). *Discovering quacks, utopias, and cemeteries: modern lessons from historical themes*. Rowman & Littlefield.

Robinson, D. J. (1999). *The Measure of Democracy: Polling, Market Research, and Public Life, 1930-1945*. University of Toronto Press.

Robinson, D. J. (2012). “Mail-Order Doctors and Market Research, 1890–1930.” Essay. In *Rise of Marketing and Market Research*, 73–93. Palgrave Macmillan.

Sarangi, S., & Sharma, P. (2019). Big Data: A Beginner’s Introduction. (First edition.). Routledge India.

Srnicek, N. (2017). *Platform Capitalism*. Polity.

Tharp, B. W. (1988). *Elixirs, Drops, Powders, and Pills: The Origins and Foundation of the American Patent Medicine Industry.* ProQuest Dissertations Publishing.

The technique of marketing research (1st ed.). (1937). McGraw-Hill Book Co.

Young, J. H. (1960). Patent Medicines: An Early Example of Competitive Marketing. *The Journal of Economic History*, *20*(4), 648–656. https://doi.org/10.1017/S0022050700109933

Young, J. H. (2015). *The Toadstool Millionaires: A Social History of Patent Medicines in America before Federal Regulation*. Princeton, NJ: Princeton University Press. https://doi.org/10.1515/9781400869008.

Zuboff, S. (2015). Big Other: Surveillance Capitalism and the Prospects of an Information Civilization. *Journal of Information Technology,* 30 (1), 75–89. https://doi.org/10.1057/jit.2015.5.

Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power*. London: Profile Books.