

**Exploring the Online Farmers' Market:
Neoliberal Venture Capital Meets the Alternative Food Movement**

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Abstract

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This research examines the recent merger of alternative food networks (AFNs) with technology startup food delivery companies. Rather than situating these new “online farmers’ markets” within a binary alternative-industrial framing, this work explores the ways in which these new market models bridge alternative-industrial food systems as a new hybrid entity, the *tech-AFN*. I find three interconnected themes at play. The first is the tension of scaling up local food systems caused by these technology companies’ attempts to both connect with and support place-based alternative food networks while simultaneously striving towards neoliberal goals of replication and geographic growth. These tensions of scale are also deeply tied to localized food system connections to place, highlighting dichotomies between the alternative food movements on the East and West coasts of the United States and refocusing debates on the value of “local” food towards the value of *place*. Second, the translation of the AFN

to digital space appears to amplify existing inequalities in food access as well as inequities due to digital divides broadly. Consumers participating in the tech-AFN, however, may have a higher engagement in social and political activism than traditional “ethical” food consumers, likely due to increased opportunities for multi-directional knowledge flows. Finally, the hybrid tech-AFN embodies a deeply-rooted clash of ideologies around the role of “food as commodity” and the value of the “technological fix,” both concepts have traditionally been promoted through a neoliberal food system approach operating in opposition to alternative food movement goals of food equity, workers rights, and long-term ecological sustainability.

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Introduction

I.1: Contextualizing the Research: The Alternative Food Movement Meets Tech

There are two cultural shifts in food retail that are changing the ways that modern day Americans buy groceries. One shift is an increase in digital food shopping and the rise of online grocery ordering. The other change is the sharp increase in consumer demand for locally grown and organic foods. Estimates in 2014 place 20% of all grocery shopping in the United States online, increasing up to almost 30% in 2015 (Brown & Washton, 2015). Increased popular access to broadband Internet and smartphone technologies supports the growth of online shopping as a whole, and the rise of online grocery shopping in particular. Simultaneous to the rise of online grocery retail is the dramatic increase in consumer demand and purchasing of organic and “locally grown” foods. Viewed as the “new wave” of American food consumption trends, a 2014 consumer survey found that over half of adult respondents *actively seek out* locally produced foods, with over one-third of respondents noting that they would pay prices up to 25% higher for local than for conventionally-sourced products (Porjes, 2015). Both online grocery markets and local food retail have seen rapid increases in their percent of the food market share over the last decade. In some cases attempts have been made to combine these two new consumer food trends together, with ultimate goals of disrupting the current dominant global food market through the implementation of a new technologically-driven model. This research project examines the meeting place of these two recent shifts in food consumption, providing an in-depth analysis of one online “local food” market institution, and exploring this new phenomenon where local and alternative food advocates find themselves as strange bedfellows with digital startup technology entrepreneurs.

I.1.1: The Growth of Online Food Retail

As mentioned above, online grocery shopping is rapidly increasing in consumer popularity. Estimates range, but researchers claim that online grocery spending in the United States will grow to between one-fifth to one-third of the US consumer grocery budget by 2018, with future industry growth estimates that continue to rise (Enright, 2015). There are multiple different types of online food retail, and, notably, not all food sold online are sold as groceries. Prepared foods can also be ordered online and delivered still warm from local restaurants. Packaged meal kits can be ordered online, with all of the components needed to prepare and assemble meals at home delivered directly. To date there are over 150 meal kit services in the United States, together grossing over \$1.5 billion in 2016 and projected to grow into a multi-billion dollar industry over the next half decade (Porjes, 2016).

In the world of online food ordering, alongside meal kits and previously prepared foods, is the realm of online groceries. In 2016 there were over 2,225 businesses in the online grocery industry in the United States alone (Alvarez, 2016). Online grocery is a low-margin and a competitive business to enter, and yet, it is one still viewed by many as the entry point of market disruption (for more information on grocery market

disruption see *Chapter Two*). The online grocery industry is seen as a more long-term sustainable and stable grocery retail option than the current brick-and-mortar grocery store model (Alvarez, 2016), thus the industry is growing rapidly through the investment of entrepreneurs hoping to create the dominant online market model of the next era. The growth of online grocery shopping in the United States is representative of the larger phenomenon of internet retail dubbed the “shut-in economy,” in which services previously constrained to the very wealthy now extend to the broader public through the expansion of digital retail (Smiley, 2015). Currently, online grocery shopping is primarily conducted by younger consumers. In 2016 online groceries in the United States brought in a revenue of \$12.3 billion, over half of which came from consumers under the age of 44 (Alvarez, 2016). Thus, rates of online food retail are projected to increase over time especially as these younger, and more tech-savvy, shoppers age and begin to comprise a larger share of the consumer market. While online grocery shopping in the US is growing, it is important to note that the United States is not the global leader in the online grocery market. Worldwide, online grocery sales are projected to net over \$100 billion in 2019, with the UK and China taking the lead as the nations with the highest rates of online grocery shoppers (Porjes, 2014).

There are four models of online grocery retail businesses. One is the model in which existing brick-and-mortar supermarkets enter the online market. Examples of this model include *PeaPod*, a subsidiary of Royal Ahold, also owning Giant Food Stores and Stop & Shop. *PeaPod* is the largest player in the online grocery industry in the United States, holding 6.3% of the total online US grocery market share (Alvarez, 2016). *Safeway Inc.* and *Walmart Stores Inc.* also have their own online grocery delivery systems, though they represent less than 2% and 1% of the current US market share, respectively (Alvarez, 2016). The second model for online grocery companies is comprised of businesses that specifically handle the delivery logistics and online ordering platform for existing major supermarkets. An example of this second model is *Instacart*, a logistics and delivery company that provides groceries for major Supermarkets including Trader Joes, Wholefoods, and Costco (Porjes, 2014). There is a potential for increased connectivity between these first two models through ongoing corporate partnerships and mergers. In 2016, for example, *Instacart* partnered with Whole Foods to provide services in every geographic location that included a Whole Foods store (though that relationship is in flux now with Amazon’s recent purchase of Whole Foods, as Amazon provides its own grocery delivery services). The third model of the online grocery business is made up of companies initially created to sell a broad array goods online that subsequently joined the online grocery industry. Examples in this third model include *Amazon Fresh* and *Amazon Prime Pantry*, which together comprise roughly 2% of the US online grocery market share (Alvarez, 2016).

The fourth and final model comprises the majority of the online grocery industry in the United States to date. This fourth model is made up of new companies developed specifically for the online grocery niche. To differentiate themselves from one another, many companies in this fourth category specialize in specific types of foods. Building on the trends and higher retail prices of “local” foods, many new online grocery companies specialize in artisanal, organic, and local food items. The largest existing

company in this fourth model is *Fresh Direct*, an online grocery market established in 1999 that delivers primarily locally and organically-grown foods in New York, New Jersey, and the Philadelphia metro area. Though it is limited geographically, at 5% of the total US online grocery market share, *Fresh Direct* is the second largest company in the industry after *PeaPod* (Alvarez, 2016). Other well-known examples in this fourth business model include Dallas-based *Artizone*, San Francisco-based *Good Eggs*, and New York-based *Farmigo* (see *Chapter One* for more on the range of specialty online grocery companies in this model and *Appendix A* for a full list of current online alternative grocery companies). These businesses *all* specialize in selling local, organic and artisanal food products. Most companies in this fourth model are not necessarily trying to compete with online grocery ordering from major suppliers such as *PeaPod* and *AmazonFresh*, or from supermarket partnerships such as Whole Foods and *Instacart*. Rather, online grocery models in this fourth category are merging with existing Alternative Food Networks (AFNs) in order to merge the increasing consumer demand for “locally” and organically produced foods with the growing adoption of online food shopping, creating what I argue in the following chapters is a new type of hybrid food market space, the *tech-AFN* (see *Chapter Three*).

1.1.2: Shifts in Food Distribution: Trending Towards the “Local”

The current dominant global food system is controlled by major multinational agribusiness corporations and is toxic to human and environmental health. This industrial food model relies on the promotion of highly processed foods and an increasing dependency on the inputs of chemical pesticides, insecticides, herbicides, fungicides, fertilizers, preservatives and pharmaceutical antibiotics (Clapp, 2003; Daemmrich, 2008; Murphy, 2008; Stuart & Worroosz, 2011). The growing reliance on these chemical compounds pervades our food system, degrading the environment, threatening biodiversity, threatening food security, and causing negative health outcomes such as multiple forms of cancer, reproductive and immunological diseases, behavioral and neurological abnormalities, and hormonal irregularities (Guthman & Mansfield, 2012; Kloppenburg, 2005; Vogel, 2008). High rates of corporate consolidation through both vertical and horizontal integration have tightened corporate control over all aspects of the food system chain, placing a small number of large transnational corporations in positions of major economic and political power. Yet, over time this industrialized food system has become increasingly normalized and accepted across mainstream cultural, social and regulatory realms.

In contrast, the public has largely positioned the *local* food system in opposition to the dominant industrial food model. Much like the organic food movement of the 1970s, the local food movement today gains traction around the support of small-scale and sustainably-focused food producers providing food primarily for high-income urban consumers. Much of the local food sold in the United States is distributed through *Alternative Food Networks*, or AFNs (though not all “local” food is “alternative” food, as discussed in *Chapter Two*). Alternative Food Networks are defined as having short supply chains, small-scale organic and sustainable production practices, and a commitment to social, economic and environmental sustainability in food production

(Jarosz, 2008). AFNs are thus situated in a *value system* of social and environmental justice, localization, and close consumer-producer relationships (Jarosz, 2008; Marsden, Banks, Renting, & Van Der Ploeg, 2001; Venn et al., 2006).

Traditionally, AFNs have also been defined in opposition to the dominant global industrial food system model. Consumers today, however, are generally buying “local” foods, not as a political stance, but because they believe those products to be fresher, healthier, tastier, and because they want to know where their food is coming from (Porjes, 2015). Unfortunately, the definitions around “local” are broad, at best. There are no standards or certifications around the marketing of “local” foods (Friedmann & McNair, 2008), and geographic boundaries for perimeters of “local” foods are disparate and ambiguous (Schnell, 2013). In some contexts “local” food implies that food is sourced from surrounding states, while in others it is sourced from surrounding regions or counties. For some retailers “local” food is synonymous with small-scale and sustainable practices of food productions, though for others this synergy is neither implied nor apparent. The ambiguity around the definition of local foods means that for online food retailers in this fourth online grocery market model, the standards within which they market their food is often being determined *by them*. Thus, these companies are simultaneously defining and explaining the food markets that they are also attempting to create and to fill (see *Chapter Three* for more on the implications of corporate definition-making on what does and doesn’t qualify as “good food” while simultaneously serving as the retailer marketing and selling those products).

1.1.3: Local-Tech: A New Food Marketspace

While both the notoriety and the market share of local and organic food is growing, the dominant industrial agribusiness model is larger, wealthier and more powerful than ever before (McMichael, 2011). Critical food scholars across disciplines have compiled a rich array of research on the negative impacts of our current global industrial food system. This library of critical food scholarship includes a myriad of critiques of various alternative food market models (see *Chapter Two*). Yet, despite the wealth of research on industrial and alternative food models, there is a demonstrable lack of attention to the intricacies of food *distribution* in the literature on alternative food. The dominant theoretical approaches to critical food studies tend to focus on *either* food consumption or production, with the distribution processes between production and retail often taken for granted or simply ignored (DuPuis, Goodman, & Harrison, 2006; Jarosz, 2008; Venn et al., 2006; Wilson, 2013). The local online food retail model is by design a new model of *both* food retail and food distribution, and thus I fold the role of food distribution into my overall research and analysis of this phenomenon as well.

The majority of these food-technology startup companies are funded by venture capital investment, and therefore, while they may be situated outside of the dominant industrial food chain, they are also deeply implicated within, and impacted by, the processes of our dominant neoliberal economic system. In this research I analyze the implications of the processes within which, due to the ambiguity within the market, and goals of meeting a market niche, these food-tech companies are actively creating

an alternative food system that is neither truly “alternative” nor directly positioned inside of the dominant mainstream industrial food model. Therefore, *unlike* previous alternative food markets such as farmers’ markets or grocery co-ops, I argue that these new market models represent *hybrid-alternatives*, simultaneously operating both in- and outside of the global industrial food system.

This new hybrid food market space provides the setting for this research. In this project I provide an in-depth analysis of one case study “online farmer’s market” model, examining the processes around decision-making for food standards and operation models, and the convergence of the alternative food movement and the technology startup worlds within the microcosm of one mid-sized case study company across its entire life-cycle. The case study company selected for this research sold their food online *and also* managed a food distribution system. In addition, the case study company developed their own sourcing standards and marketing strategies for their alternative food retail. The company also followed a typical timeline and protocol for technology startups, seeking financial support through tiered rounds of venture capital (VC) funding, and the promise of rapid growth and expansion to supply high returns to VC investors.

I argue that a focus on these new food market systems can serve not only as a bridge between the theoretical production-consumption dichotomies; but further, that it provides a systemic perspective on the power structures and connectivity in place across both the alternative and industrial food chains. I analyze the new food-tech hybrid market space in order to explore the different ways in which the leverage, power, promises and pitfalls of the hybrid alternative-industrial food market model impacts AFN consumers and producers, and the goals of the alternative food movement overall. To better understand the constraints and opportunities along the pathways of alternative food production and consumption, I demonstrate that it is essential to explore the ways in which these processes are connected through the creation and development of this hybrid tech-AFN market model.

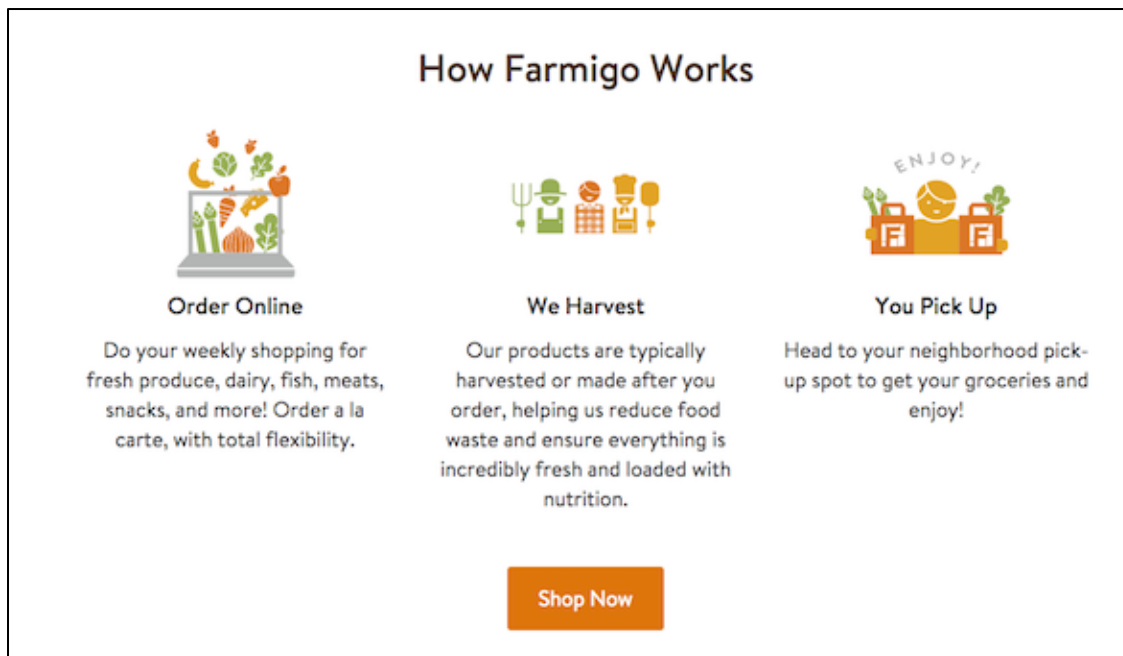
I.2: Case Study Specifics

This research is situated as an institutional ethnography. The research process included eight months of ethnographic work as a participant observer with the case study company, a detailed analysis of in-depth interviews with former company staff, and a comprehensive review of the company’s promotional materials, newsletters, and web applications. Thus, I aim to understand the food-tech hybrid model from the *inside* of the institution itself, unpacking the ways in which the actors within the institution operated, made decisions, and conceptualized their own role in goals of tech-oriented market disruption and in the goals of the alternative food movement.

Though each new online grocery model is unique, Farmigo, the case study company, was fairly typical of the average tech-AFN model of its time (see *Chapter One: Methods* and *Appendix A* for more on companies within this market model). When it was operational, Farmigo’s online marketplace could be accessed through either a web

browser or mobile application after providing a zip code and connecting to a specific delivery area (if the zip code supplied was outside of the company delivery zone, the user received a message that the service is not available to them, and the company aggregated that data for use in determining geographic options for future expansion). There was an order window lasting four days, during which the customer’s order could be changed or updated at any time, and after which the local food producers in each region were contacted to fulfill the company’s order needs. Food was consolidated in a centrally-located warehouse space, delivered by the small-scale food producers or by a local food hub service, and then sorted into individual orders and delivered to central weekly pickup locations three days after the close of the order window. For more on *How Farmigo Worked* see *Figure I.1* below. This lag time between customer ordering and pickup allowed the company to operate within a low waste “just in time” model, in which food was primarily produced or harvested only for the orders of that week. The community food pickup sites made use of homes, offices or small businesses such as yoga studios or coffee shops in which people gathered locally to collect their weekly grocery order. These community pickups allowed the company to capitalize on the growth of the “sharing economy,” aimed at leveraging digital connectivity to disrupt existing markets (see *Chapter Four* for more on Farmigo’s “just in time” model and on the company’s “community pickup” process).

Figure I.1: How Farmigo Worked (accessed 06.23.16)



Farmigo was originally founded in 2009 by co-founders Benzi Ronen and Yossi Pik as a software program for small farms to manage their Community Supported Agriculture (CSA) subscriptions. The company still operates its CSA software management program, supporting over 400 farms in twenty-five different states (Burwood-Taylor, 2016). In December 2012 Farmigo expanded their operations to include a food retail and delivery system, ultimately providing over 3,000 food deliveries a week across

four states (Mitchell, 2016). In this expansion process the company raised \$26 million dollars over three funding rounds from major VC investors including Formation 8, RSF Social Finance, Sherbrooke Capital and Benchmark Capital (CrunchBase, 2017). In July 2016, however, the company closed its delivery services operations in order to focus solely on its CSA software management platform. It is important to note that at Farmigo the offices and operations of the CSA Software Management program and the food delivery program were extremely separate. Thus, this project focuses entirely on the company in its capacity as a food delivery tech-AFN, reviewing the lifecycle of the food delivery component of the company in its entirety. Notably, this research does not intend to address the reasons why the food distribution aspect of Farmigo “failed,” though the theme of its ultimate closure is returned to throughout.

I.3: Research Goals and Objectives

This research explores the growing sector of alternative online food retail, examining the culture and dynamics occurring in the collision of the alternative food movement with the rise of food-delivery startups, and reviews the broad social impacts of these new food market models. This is a pivotal moment for the growth of alternative food distribution; yet, attention to these new food-tech hybrid models is absent from current critical food studies and AFN literature. This project answers calls both to bridge research on food consumption and production within alternative food discourse (DuPuis et al., 2006; Wilson, 2013) and for increased qualitative research on scalar strategies within the food movement (Born & Purcell, 2006). This research also builds on work exploring the spaces between social movement innovation and market adaptation in food democracy participation (Josée Johnston, Biro, & MacKendrick, 2009b), focusing on the relationship between “ethical” consumption and civic engagement specifically in online market spaces. Importantly, this research includes critical attention to the dynamics of exclusion within alternative food networks (Allen & Guthman, 2006; Busa & Garder, 2015; Guthman, 2008b, 2011) and within digital market spaces (Gilbert, Masucci, Homko, & Bove, 2008; Halford & Savage, 2010; Warf, 2001), noting amplified concerns of compounding exclusion and equity issues within the tech-AFN. Finally, as an institutional ethnography this work also responds to calls for geographers to engage more critically with institutional ethnographic methods (Billo & Mountz, 2015).

I.3.1: Research Questions

This research project is guided by three overarching questions that seek to unpack the connections between the alternative and the industrial hybrid food model of the tech-AFN. These guiding questions are:

- *What role do new online farmers’ market models play in supporting the goals of alternative food networks and the alternative food movement?*
- *What role do new online farmers’ market models play in supporting neoliberal ideologies and practices that function in opposition to the goals of alternative food networks and the alternative food movement?*

- *What are the impacts and implications of developing new alternative food markets in digital spaces?*

1.3.2: Intellectual Impacts

This research seeks to contribute to the development of knowledge in three distinct ways. The first is the identification and clarification of the tech-AFN concept of a hybrid model derived from traditional alternative food network (AFN) models. Throughout this research I analyze and explore the nuances of the tensions within the hybrid tech-AFN model, and the outcomes of these tensions on the success of the model's operations and expansion goals. In particular I explore the tensions around the role of food as commodity in opposition to food as a human right, and of the perceived value of the "technological fix." Both have been traditionally promoted by the neoliberal market approach operating in *opposition to* alternative food movement goals of food equity, workers rights, and long-term ecological sustainability; leading to a crisis of both values and identity for the tech-AFN.

The second core contribution involves the role of tech-AFN consumers. I review the current debates within the literature on ethical consumption and consumer engagement in food system advocacy and activism, and apply current theories specifically to the tech-AFN model. Based on case study data, I find that the digital platform of the tech-AFN offers *increased opportunities* for multi-directional knowledge pathways between alternative food consumers and retailers, which in turn appear to promote actions of increased civic engagement. In addition, I review on the equity implications for all consumers with the rise of the tech-AFN, noting the ways in which the *intersections of exclusion* across both alternative food networks and digital space appear to amplify equity issues and exclusions on the bases of race, class, and gender.

The third component of my research contribution involves regional conceptualizations of AFNs and of the food movement broadly. The tech-AFN is designed specifically for VC funding to scale geographically, and as such it provides an exceptional opportunity for a regionally-based comparative analysis. I analyze the three regions of the case study company operations, finding consequential place-based differences. Notably, the current literature on the alternative food movement in the United States includes attention to differences *within* the movement, such as racial and class discrepancies, but for the large part fails to incorporate place-based differences. Thus, the current literature inaccurately provides a uniform perception of AFNs broadly, and of a static alternative food movement across the nation. Through my case study analysis, I argue that blanket statements about the food movement in the US that are not grounded *in place* fail to acknowledge the unique histories and ideologies driving these place-based movements. Clear regional differences exist in food cultures and histories, alternative food availability, and the understandings of the role of AFNs, especially across the Eastern and Western Coasts of the United States. These differences majorly impact the evolution and viability of the tech-AFN model.

1.3.3: Broader Impacts

This project focuses on the growth of the tech-AFN as an entry point to food system change. Overall, this research aims to inform and support the practitioners of alternative food models in the increasing era of food-tech, with the goal of enabling the growth and success of a more accessible, healthy and sustainable food system. As a work of public scholarship this project seeks to support the ongoing development of reflexive, inclusive and accessible alternative food market spaces. Finally, this work intends to inform not only the people creating the programs of alternative food distribution, but also those creating the programs and policies that seek to serve and sustain them.

1.4: Chapter Overviews

The chapters in this research report are detailed as follows. *Chapter One: Methodology* outlines the research design and methods of data collection and analysis. This chapter situates the case study company within the field of alternative food online retail. Chapter one also outlines the site selection process and reviews the interview, textual analysis, and participant observation analysis processes that together informed this research as an institutional ethnography. *Chapter Two: Literature Review* provides an overview of the relevant literature serving as a basis for this research across three overarching fields of knowledge: alternative food networks and the alternative food movements, digital markets and power structures in digital space, and the growth of corporate accountability and alternative economies within neoliberal market models. Following these two chapters are three analytical chapters reviewing the core contributions of my research findings to the literature, discussed below.

Chapter Three: Venture Capital Meets the Alternative Food Movement identifies and classifies the “online farmers’ market” as a tech-AFN hybrid model. This chapter reviews the tensions within the existence of the tech-AFN hybrid, including discrepancies between the culture and goals of traditional alternative food networks (AFNs) and venture capital-funded technology startup market models. Additional examples of the tensions discussed in this chapter include differences in organizational approaches to time, operational goals, and the meaning of a “mission.” Woven across this chapter are the contrasts between the alternative food and technology startup worlds in the ways in which food as a commodity is situated, sold, and understood. A major tension within the tech-AFN also exists around ideologies of growth. Venture capital investment requirements promote the need for large-scale replicability of new startups across geographic space, and this need is juxtaposed in contrast to traditional AFN models that are historically embedded *in place*. Finally, this chapter analyzes the implications of oppositional ideologies on the value of the “technical fix” across the alternative food movement and technology startup cultures of the tech-AFN.

Chapter Four: Consumers and the Tech-AFN investigates the ways in which case study employees and volunteers understood their own participation within the tech-AFN through their organizing, marketing and consumption activities; reviewing the

implications of the introduction of a digital farmers' market model on local and organic-seeking food consumers. In particular, this chapter examines the implications of "ethical eating" for "political engagement" in digital space, noting the ways that *digital* community building can serve to propel ethical consumers towards increased civic engagement and related activism. This chapter includes attention to equity concerns in the tech-AFN, identifying race, class, and gender inequalities across the case study in both consumer outreach and in market growth strategy. Specifically, this chapter reviews the *intersections* of exclusion between the "local trap" and the "digital divide," noting in particular gendered labor roles and the high reliance on educated and under-paid middle-class white women within the tech-AFN model. Finally, this chapter explores the role of digital pathways of information and relationship building in shortened supply chains across digital space, and the aggregation of the alternative producer knowledge within a "expert" knowledge platform in digital market space, thus exposing the positionality of the tech-AFN as both hosting and disseminating information through a lens of content expertise within a for-profit market space.

Chapter Five: Geographic Differences – Can the Local Scale? examines the expansion of the tech-AFN model across regions, and analyzes the errors embedded in assumptions about exporting AFN-type models across place. This chapter begins by situating the historic context of the case study company's three operating regions in the rise of their own place-based food movements and technological industry growth. In analyzing both of these historic contexts together with the traction of the case study company's growth in each region, this chapter unpacks the ways in which regional differences shaped and informed the reception of the case study company differently in each place. Based on this regional analysis, this chapter uncovers some core differences in the food movement across the East and West Coasts of the United States, dismantling the notion of a uniform alternative food movement across the nation. This chapter then reviews the consequences of the case study company's foundation in the cultural and historic ideologies of food and tech of one particular region; leading to conclusions that the VC-investment model, and its pressure to replicate a uniform model across place, will ultimately be damaging to the long-term survival of the tech-AFN. This chapter renews a focus of the importance of the *local* in the food movement, beyond the superficial notion of spatial boundaries, and rather as a movement grounded in *place*.

These chapters are followed by a brief concluding chapter summarizing the key findings of this research, along with thoughts on future directions of the tech-AFN model growth. Following the conclusion are appendices with relevant charts and data, and a references section listing all works cited.

Chapter One: Methodology

“Significantly, the concepts used by those involved in AFNs differed from those used in academic discussion, and this provided a valuable opportunity for examination of how actors in AFNs represented their particular projects and what they considered their primary role. Such a focus also facilitates an interrogation of exactly what the academic conceptualizations might relate to in practice. As such, analysis of how schemes represent themselves provides a grounded understanding of how those involved in AFNs conceptualize and aim to achieve connection between producers and consumers, and the many forms that such undertakings adopt at the grass roots level.” (Venn et al., 2006, p. 254)

A decade ago researchers in Europe published a pivotal article on Alternative Food Networks (AFNs) cited above, including close attention to the disconnect between conceptualizations of AFNs within academic discourse that differed from the conceptualizations of AFN actors on the ground, and noting the need for additional alternative food system research and ongoing methodological research process review (Venn et al., 2006). Over a decade later my research builds on Venn et al.’s previous publication by focusing on the role of the actors in a new model of the AFN, the *tech-AFN* (see *Introduction*). Through this research I aim to understand the tensions between the convergence of the digital startup technology industry and alternative food networks in the United States, as well as some implications of those tensions. My research methods build on Venn et al.’s call for additional academic study of AFN actors and institutions, providing an in-depth case study of one specific tech-AFN model across three regions. In this research I focus intentionally on the role of the actors involved in building and creating the case study company, with the aim of grounding my work within the inner functioning of the tech-AFN institution, and also of bridging the disconnect between academic research and AFN actors’ conceptualizations of their own role within tech-AFN operations. Thus, this research is positioned as an *institutional ethnography*, using insider information to unpack the “black box” of the tech-AFN as a new hybrid institution.

The framing of this research as an institutional ethnography is intentional. Institutional ethnography is particularly valuable in aiming to understand both the ways in which discourse is shaped by actors within an institution, as well as the relationship of the institutional actors and actions with the outside world (Billo & Mountz, 2015). This research provides an inductive and interpretive analysis of the institutional discourse of the tech-AFN, developing out of the intersection of three practical and theoretical fields. The first field incorporates themes related to the alternative food movement, alternative food markets, networks, and partnerships, and critiques of non-reflexive localism. The second field includes the implications of digitizing food markets, the power structures in digital space including issues of inequity relating to the digital divide (and beyond), and potential opportunities available through digital space of decentralizing corporate food system control. The third theoretical field examines the tensions of venture capitalist growth goals, and the conflicts between corporate

accountability and ethical consumerism in alternative food economies. Each of these themes is explored further in *Chapter Two: Literature Review*.

1.1: Research Overview

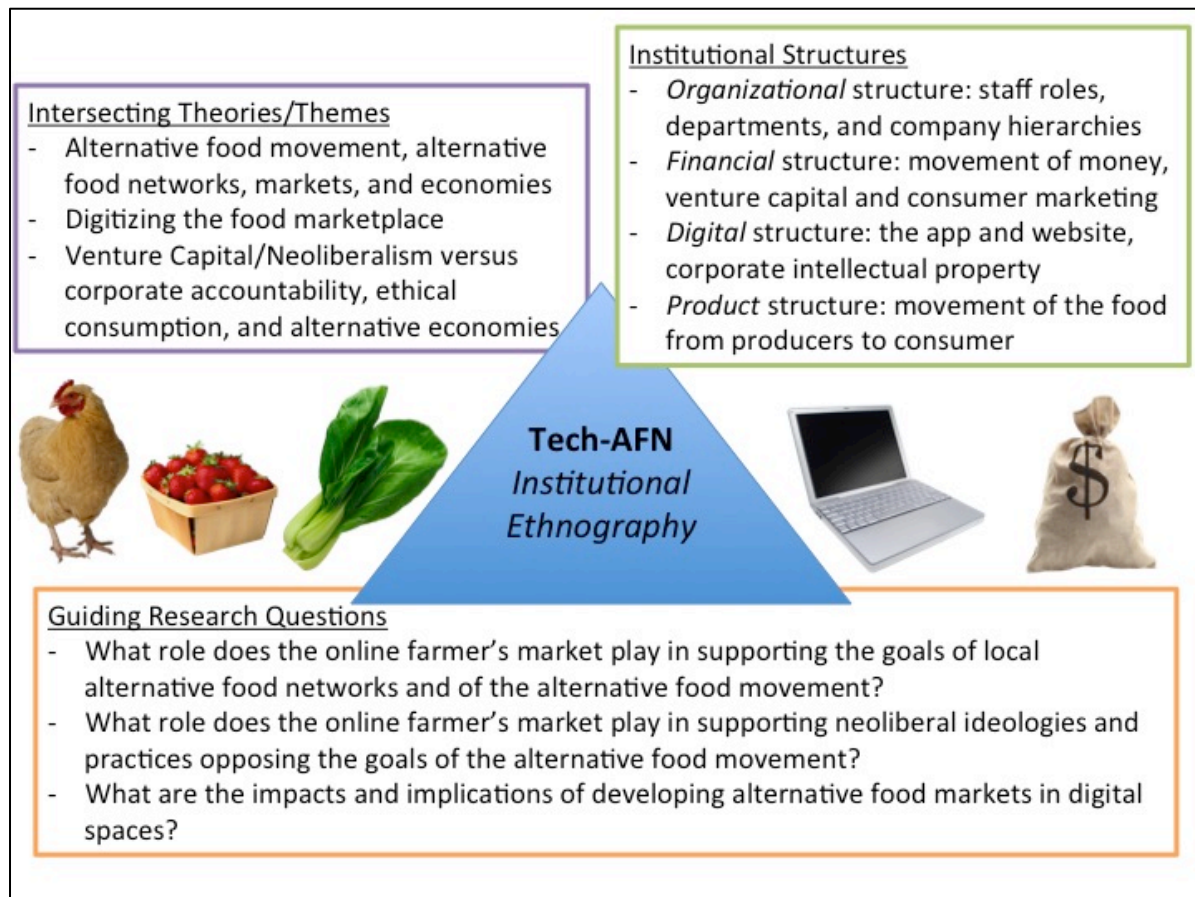
This research provides an institutional ethnography of the lifecycle of one case study tech-AFN startup company that positioned itself as an “online farmers’ market.” The research was guided by three overarching questions:

- *What role does the online farmer’s market play in supporting the goals of alternative food networks and the alternative food movement?*
- *What role does the online farmer’s market models play in supporting neoliberal ideologies that oppose the goals of alternative food movement?*
- *What are the impacts and implications of developing alternative food markets in digital spaces?*

To unpack the influences and the processes taking place within this institution, the research examines the convergence of the three theoretical themes outlined above within the hybrid tech-AFN institution: the alternative food movement and alternative food networks, the digitization of food markets, and the tensions between venture capital neoliberal ideals and alternative food economies. To examine the intersections of these identified themes within the case study company I have separated the tech-AFN model into a composition of four different and interconnected structures; including the organizational, financial, digital, and product components. The *organizational* structure is comprised of people who operate and organize the institution, including identified staff roles, organizational departments, and company hierarchies of power and leadership. The *financial* structure includes the movement of money, and an examination of both inward marketing of agency funding (through venture capital) as well as outward corporate marketing to consumers. The *digital* structure of the institution is demonstrated through the app and website developed by the company as its intellectual property. The fourth and final structure includes the movement and curation of the *product* (the food) within the company, including the movement of the food from local and artisanal producers and distributors, through the company warehouse and delivery subcontractors, to community pickup sites and, ultimately, to the consumer.

Figure 1.1 below is intended to clarify the relationships between the academic theories and themes used in this research, with the institutional structures of the case study company, and the guiding research questions incorporated within my research design.

Figure 1.1: Tech-AFN Institutional Ethnography – Connecting Themes



1.2: Research Design

To unpack the “black box” of the tech-AFN, this research analyzes the complete lifecycle of one tech-AFN case study company. Data is triangulated through the incorporation of information from three distinct sources: in-depth interviews with former case study company staff, autoethnography based on my experiences working for eight months as a paid company employee, and discourse and content analysis based on consumer-facing materials generated by the company itself. The combination of these three forms of data provide a wealth of information for a rich ethnographic analysis of the processes taking place inside – and those influencing and impacted by – the development of the tech-AFN in the following ways.

The bulk of data collection stems from in-depth ethnographic interviews with the tech-AFN case study’s former staff members. Throughout this research I have relied on ethnographic methods to uncover the processes and meanings of social action in *place*, noting the distinct processes occurring within the formation of the tech-AFN within its three operating regions. An ethnographic approach is extremely valuable in exploring thematic and relational analyses with a close attention to detail (Herbert, 2000), and in-depth qualitative interviews are useful in gaining insight into practices around ethical consumption (Johnston, Szabo, & Rodney, 2011). As such, both form a core

component of my research. My goal in unpacking the “black box” of the tech-AFN as an institution is to gain a deeper understanding on the movement of power and knowledge *within* the institutional model in order to better comprehend the relationship of the tech-AFN broadly within the structures of venture capital, neoliberalism, the alternative food movement, and digital market space. Thus, an ethnographic approach is further useful in this research design due to the emphasis within ethnography on analyses of organizational relationships and on the movement of power and knowledge within and outside institutions (Watson & Till, 2010).

The second avenue for data collection came through an autoethnographic account. I, the researcher, spent eight months working in a paid leadership position in the Seattle region of the case study company. This research project was born from my direct observations and experiences working as a member of the case study organization, and draws on my individual experiences as a tech-AFN employee. Following Anderson (2006), I situate my autoethnographic analysis as an *analytic* autoethnography. I, the researcher, was a full and complete member of the research group, I am visible throughout the analysis as such, and I am dedicated to the development of theoretical understandings of a broader social phenomena, rather than simply memoir or story-telling (Anderson, 2006). In this project autoethnography provides a unique opportunity for me to take my historic connection to this institution and use it to tell a story that is about much more than my own life experiences (Cook, 1998). Rather, I use my experiences and observations as a full and complete member of the staff group that comprised this institution to provide a unique insight into the processes involved in creating and operating a tech-AFN institution.

Participant observation is also important in understanding the ways in which institutional cultures and norms are created and maintained, and the ways in which norms influence the actors working within and outside of specific institutions (Billo & Mountz, 2015). As part of my research design I had intended to conduct additional participant observation at site visits in all of the case study’s operating regions. I was unable to do so, however, because the case study company closed its operations only days after the approval of my research IRB. Therefore, I rely on my autoethnographic experiences to further fill the gaps of not being able to conduct data collection as a participant observer in the later research stages. In this way an autoethnographic and relational research approach is even more beneficial for this particular project because of my focus on the organizational connections and power dynamics involved in the development of information and meaning between and across groups. The complexity and nuance of this data is information that I would have been extremely unlikely to ascertain through interviews and content analysis alone.

My position as an insider in this group, as a former colleague and staff member, also deeply informed the quality of my interviews. I understood the language and the culture of the organization before formally entering the “research space.” I had camaraderie and shared experiences with my interviewees, allowing them to relate to me on a familiar level, and to open up to me about their thoughts and experiences. Also, because I left the company three months before it closed, there was enough time

in my absence that my personal role could be navigated around for the sharing of information. For example, if my interviewees mentioned information or ideas that they thought might be emotional or insulting to me, such as negative interpretations of the actions of “my” team, they tended to situate those comments as occurring after I had left the company, even if their anecdotes did not match an accurate timeline of events.

The fact of the company’s closure also added to a shared sense of former involvement, so although I had left the company months earlier than my interviewees had, there remained a shared sense of a project and built and then relinquished together. Is it possible that there was information that wasn’t shared with me because of my positionality in this research? Certainly, I would posit that there probably was. I also argue that that fact is true for any researcher conducting ethnographic fieldwork. On the whole, my inclusion within the institution as a fellow former employee primarily provided a sense of connection with my interviewees. Throughout the interviews there was a lot of “we” language used, or references of shared thoughts or experiences such as, “well, *you* know” or “as *we’ve both* experienced.” The research process influences *all* researchers (Cook, 1998). In this project I approached both my research design and my data collection process equipped with pre-existing experience from the field, and I would argue that my research is the stronger for my previous involvement.

The final leg of my data triangulation comes from discourse and content analysis of the materials developed by the case study company specifically for public consumption. These materials include the company’s marketplace as presented in its app and website, and information about the company’s operations, the products it sold, and the producers it sourced from. Content was gathered from the company website, company blog, and the emails and newsletters distributed to consumers. Content analysis also included a review of posts on private Facebook groups designed for the company’s volunteer organizers (see *Chapter Four*), led and facilitated by company staff members. Discourse analysis is used to explore the processes within which meaning and power structures are formed and maintained (Dittmer, 2010). In this research, discourse analysis was used to unpack the ways that the case study company situated itself and its consumers, as well as the products and information it was promoting within the context of the broader food movement. Following Dittmer (2010), my review of the language and content used in the materials developed by the company intends to uncover and to expose the processes through which the meaning and value of organization, in this case the tech-AFN model, was developed and embedded, both specifically within the individual institutional framework, and in society broadly.

Each aspect of my triangular data collection was designed to elicit information around the key structures and themes of this research project. Ultimately, by exploring each of these three threads independently, my intention was to gain an increased understanding of the ways in which the themes of the alternative food movement, corporate accountability, and new digital economies came together to influence and also contradict one another in this tech-AFN model. In developing a deeper understanding of this specific institution my intention was to uncover new insights about potential tools, outcomes, and broader implications of the tech-AFN. The goals of

each of the three components of data collection, and the specific research questions that each component sought to uncover, are described below.

Q: How do themes from the alternative food movement and existing alternative food networks form and inform the online farmer's market model?

- *Interviews:*
 - How do staff members understand the alternative food movement?
 - Do staff members see themselves as working in support of the alternative food movement? How? Why or why not?
 - Do staff members come from an alternative food background? What?
- *Participant Observation/Autoethnography:*
 - How is the alternative food movement understood differently across the agency (across departments and/or levels of responsibility)?
 - How are alternative food producers and consumers situated? How are producers identified and reached out to? How are consumers?
- *Discourse/Content Analysis:*
 - How is the company positioning itself within the alternative foodscape? How does this compare to the existing alternative food network?
 - How are alternative food producers displayed, discussed, and accessed through the website, app, blog, emails, and other online materials?
 - How are products marketed to consumers as “alternative” foods?

Q: How do goals of the “mission,” corporate accountability, Corporate Social Responsibility (CSR) and the B-Corp structure form and inform the online farmer's market model?

- *Interviews:*
 - How are company goals understood, determined, identified, challenged and promoted by staff members? Are there discrepancies across departments and/or levels of responsibility?
 - How are staff members motivated by CSR goals and/or the B-Corp structure? What are other motivating factors for staff?
- *Participant Observation/Autoethnography:*
 - How are company goals of CSR stated and reinforced within the company? How are these goals developed and disseminated? Are there any tensions in relation to the goals and corporate structure?
 - What role does the B-Corp structure play internally? How does this impact staff member's perception of their work and contribution?
 - How are concepts of “good food” and “food access” discussed internally?

- *Discourse/Content Analysis:*
 - How is the company's mission displayed and discussed?
 - How are CSR goals integrated in the user experience of the app/website?
 - What role does the B-Corp play in the way the company markets itself to consumers and to financial backers?
 - How are concepts of "good food" and "food access" presented?

Q: How do the emergence of new digital economies - those integrating crowd sourcing with a venture-capital-backed tech startup structure - form and inform the online farmer's market model?

- *Interviews:*
 - How does "startup culture" impact work experiences and career goals?
 - Do (and how do) staff members identify in the tech world? How does that identity impact their understanding of their work and the company?
- *Participant Observation/Autoethnography:*
 - How is "startup culture" displayed in decision-making and goal setting?
 - What role does venture capital backing play in decision-making and organizational goal setting?
- *Discourse Analysis:*
 - How are digital platforms designed to mimic the farmer's market experience? What is different? Missing? Added?
 - How are digital platforms designed to mimic other platforms in the new digital economy (Uber, AirBnB, etc.)? What is different? Missing? Added?

It is important to note that my research is situated and is partial. I choose to focus on one case study company in order to collect rich and immersive data, and as such, this research provides an in-depth analysis of only one model example, and thus may or may not be truly representative of the whole. Similarly, I choose to focus my research interviews on one population group, the employees working for this institution. Due to temporal and financial constraints, I choose not interview the individuals producing the food being sourced to the case study company (the producers), nor the individuals purchasing the food (the consumers). Though I was able to gain some insight into consumer preferences and motivations through review of their social media posts, additional research on both producer and consumer perceptions of and relations to the tech-AFN would provide valuable and informative insight into the implications of the model broadly. For the purposes of this research I determined that the data generated from employee interviews, autoethnography, and content analysis from within the institution was more than adequate to address the initial research questions and goals.

1.3: The Case Study: Site Selection and Justification

In my original research proposal, three case study companies were identified for data collection and analysis. The three case study sites were chosen based on a

comprehensive list of all of the major food and technology companies operating in the United States developed by Rosenheim Advisors in March 2016 (see *Appendix One*). This list was identified at the time as the most up to date and comprehensive list of tech-AFNs, and I communicated directly with the developers of the list in order to ascertain the credibility on the methods of site collection and inclusion. The creators of the Rosenheim list noted that all of the companies included were VC-funded and included a mix of large-scale, new technology, and early stage startup corporations. Based on this initial list I developed a table of all the major online grocery companies operating in the United States as of March 2016 with data collected thorough examinations of company websites and reviews of online news articles about each online grocery company (see *Appendix One* for the full online grocery company list).

In March 2016 there were 22 major online grocery companies operating in the United States. Of these 22 companies there were 8 that relied only online platforms and were not operating warehouses or dealing with delivery logistics, rendering them outside of the scope of this study. In addition, one of the 22 was more appropriately categorized as a meal kit delivery service and not as an online grocery. Of the remaining 13 organizations, three were major online grocery retailers (Amazon Fresh, Peapod, and Fresh Direct) and were eliminated as falling outside the scope of this project by virtue of their size. Of the ten remaining online grocery companies, two did not offer fresh produce, also placing them outside of the scope of this research and three were certified as “mission-driven” B-Corporations, an essential component of this research inquiry. Thus, the three original case study sites presented for this research project included *DoorToDoor Organics*, *Good Eggs*, and *Farmigo*.

All three potential case study sites were B-Corp certified companies in the early-mid stage of their startup growth, and were funded through Venture Capital investment. In March 2016 all three sold fresh, natural, organic, and local food products. At that time, all three also operated their own warehouses and delivery services. *DoorToDoor Organics* operated in the largest geographic area of the three. Based in Colorado, *DoorToDoor Organics* served a high number of Eastern and Central states and employed a produce box model with customizable grocery and meal kit additions. *Good Eggs*, based in San Francisco, CA, operated a customizable next-day delivery model that includes meal kits and recipes. Prior to March 2016 *Good Eggs* had included operations in New York City, Los Angeles, and New Orleans, but downsized in August 2015 to focus operations in the California Bay area. The third case study company, *Farmigo*, was based in Brooklyn, NY, and served the wider New York and New Jersey region, as well as the Bay Area in California and the Seattle-Tacoma region in Washington state. *Farmigo* used a customizable weekly or bi-weekly ordering model reliant on community pickup sites operated by community “organizers”, and most clearly marketed itself as an “online famers’ market.”

From these original three, there were several strong reasons justifying the focus on *Farmigo* as the sole case study company for this study. Of the three potential case study companies, *Farmigo* was the mid-size company, operating in more than one region, but in less than five states. Further, *Farmigo*’s ordering platform was focused

on being completely customizable, situating it more closely to a virtual farmers' market and less as a large-scale CSA operation. Perhaps most importantly, as noted previously, I had been closely involved in the development and expansion of the Farmigo model in the Seattle-Tacoma region, and had worked in a managerial and leadership position within the organization. My intimacy with the inner workings of this institution allowed me greater access to "insider" information, including established relationships of trust with former colleagues and staff members, and a working knowledge of the organizational structure and culture. Finally, many of the concepts that formed the foundation of the guiding research questions of this study grew from my experiences as a Farmigo staff member and employee.

I had worked at Farmigo for eight months prior to creating the initial proposal for this research project. Thus, much of my insight and motivation for this research project was guided by my experiences working within the company. My role had been in a leadership and consumer-facing position with the goal of supporting the company's launch in their first new region, the Seattle and Tacoma area of Washington state. The Seattle region's launch was formulated as a demonstration of the Farmigo model's replicability in new regions, required to propel them into the third funding round of the typical tech startup (see *Chapter Three*).

The first six months I spent at Farmigo were very busy; hiring and training a staff team, dealing with the logistics of creating a work site in a new space, trying to massage a New York-developed model into a Pacific North West space (it didn't work), and attempting to situate the company within the local Seattle food scene (which also, arguably, did not work). It was not until the work pace slowed slightly over the winter holidays that I had time to reflect on a systems-level about the role company in the Seattle region and the food movement more broadly, and to reflect some of the tensions I was experiencing within the company. Returning to work in January 2016 I was hyper-conscious of the systems-level reflections and critique from my graduate school training, and I began gravitating back towards the University setting and towards this research project. I returned to the University of Washington as a full-time graduate student in March 2016 in order to formally conduct this research. Thus, it was only *after* leaving the company's employment that I began to truly work through applying the insights and observations from my work experiences to this analysis.

I provide the details of my story here in order to explain that while my work experience at Farmigo did indeed set the foundations for my dissertation research, my personal involvement became a sort of *retroactive* fieldwork that I then incorporated and built upon in this research process. My presence as a Farmigo employee was never guided by academic goals. This statement is important in situating my work as analytic autoethnography, as I truly was a *fully immersed* member of the institutional staff group. In certain respects this project would have been easier had I embarked on my Farmigo journey as an undercover researcher throughout. In retrospect, I *wish* that I had kept more detailed accounts of my experiences at that time. However, I wasn't working as a Farmigo employee with the ulterior motive of academic research. Instead, I was truly a part of the company process, like all the rest, and that uncompromised

inclusion allows me to look at my own experiences later on with an analytic eye, as one example of an actor's experience within the greater institutional process.

An unintended turn took place with this case study, which is that the company closed its operations in the summer of 2016. The closure of Farmigo was partly due to funding constraints, and partly due to personal decisions on the part of the company founders and owners. Despite this major shift in the company's operations, and the resulting shift in my research design, this is not a research project about why the case study company failed. Rather, the closure of the company allows me to examine the *life cycle* of the VC-funded "online farmers' market" tech-AFN from start to finish, following the research themes and guiding questions previously identified.

I will admit that I was initially nervous that the company's closure would cause an insurmountable hurdle in my data collection and research process. However, while the research process was certainly different than I had intended it to be due to these changes, in many ways it was enhanced. The former staff members of Farmigo found themselves with a lot of time to talk with me, and they *wanted* to talk about their experiences with the company, both positive and negative. There was certainly plenty venting of frustrations about the company, both with the abruptness of the ending as well as with processes along the way, but there was also a great deal of pride expressed in the former staff members' accomplishments. It appeared validating for many of my interviewees to share with me what they felt they had been doing and building before the company closed. In addition, the company's closure led many former staff towards a more systems-level introspection themselves, allowing them a distance from their work that facilitated a candid discussion of their experiences from a bigger picture viewpoint than they might have otherwise had. Finally, because they no longer had jobs to protect, the interviewees were liberal in information that they shared with me, and appeared to be less concerned about any negative ramifications of information disclosure than they might have been otherwise.

1.4: Interview Process

When I left my employment with Farmigo in March 2016 I wrote a company-wide farewell email, a standard practice, and in my remarks I noted that I would be conducting research on the work that Farmigo and companies' like it were doing. This advance preparation meant that former Farmigo staff were unsurprised when I reached out to them later on, in the summer of 2016, to schedule interviews. I began by contacting all of the staff that had worked in the Seattle office, and my initial invitation was fairly broad. I mentioned that I wanted to talk with them about their experiences and thoughts about Farmigo, and I asked if I could buy them a coffee or a beer and just talk for a while. In August 2016 I traveled to California and reached out similarly to all of the former Farmigo staff members there, meeting with all but two of them. In September 2016 I traveled to New York and, because the New York office was much larger than the offices on the West Coast, and because my time there was limited, I began by contacting the former employees that had been in management or leadership positions at Farmigo, and any employees that had headquarter roles that were not

replicated in the satellite offices, such as in design or branding. I then contacted some remaining New York employees based on referral sampling from the other New York-based interviewees that I had talked to.

In total, thirty interviews were conducted, representing just over half of the fulltime staff working with Farmigo at the time of the company's closure. Ten interviews were conducted with staff from the Seattle region, eleven with staff from the Bay Area, and nine with staff from New York and from Israel (where the co-founder managed the company's development team). The interviews ranged in time from half an hour to two hours, averaging roughly an hour. Twenty-four interviews took place in person, and six interviews occurred over phone or Skype due to scheduling or geographic constraints.

Noting the power dynamics of the microgeographies of the interview (Elwood & Martin, 2000), I met people across each metropolitan area in locations of the interviewees choosing. Thus, I conducted interviews at taco trucks, on park benches, in community gardens, in a multitude of cafes and coffee shops, in my home, in my interviewees' home, and in quite a few bars. In some ways each meeting space personified the culture and individuality of each interviewee and also subtly informed the interview discussion. An interview that took place on a wooden bench in one of Seattle's community gardens and free food forests meant that our conversation may have been imbued by thoughts of community action and the role of food cultivation in the food movement. An interview that took place at the Ferry Building in San Francisco meant that our thoughts and conversation might have been influenced by the deep history of trade and the market, and by the wealth of local food products for sale there. The intimacy of talking in community coffee shops and bars, and certainly in meeting inside the home, added a deep level of confidence, trust, and openness to our conversations, and in general interviewees shared their perspectives with me much more as if sharing to a friend than to a researcher. All interviews were digitally recorded, transcribed, and labeled with a unique geographic identifier.

I began my first few interviews with a long list of questions that encompassed all of my research goals and objectives. I quickly realized that I only really required two broad questions to ascertain the data I needed, and that with a little bit of conversation guiding I could cover my research objectives in an organic conversation flow. I began each interview by sharing a little bit about my own story and the goals of this research project, and then asked my interviewees to share their experiences working with food and the story of how they came to work at Farmigo. This introductory format served both to situate the research subject within the food movement for the purposes of my research, and also to create a collegial interview atmosphere (I've found that people, in general, enjoy talking about themselves and their stories). Talking about their "food story" helped put at ease any research subjects who appeared nervous about "successfully" completing their interview. Following a general introduction I would ask two broad questions, either together or separately depending on the flow of the conversation. I asked, *What do you think we did well at Farmigo?* and *What do you think that we did not do so well?*

When the interviews seemed to be trending too deeply towards the negative I attempted to nudge them towards a more positive perspective, asking questions like, *Can you think of anything that we did really well? Can you expand on that? Tell more about what you think was going on there...* Given the abruptness of the company closure, and the fear and disappointment of people who had recently lost their jobs, I rarely had the problem of over-positivity in interviews. However, Farmigo was in the hybrid role of being a mission-driven B-Corp company, which meant that most of the staff that had worked there had been enticed by the job in some way because they *believed in* some component(s) of the company's mission or goals. Therefore, despite some initial misgivings and ventings of frustration or anger, I was generally able to get below the surface of any job-loss related bitterness and uncover a rather well-rounded assessment of the company as it *had been* when it was fully functioning.

In every case I ended the interview by asking, *Do you have any questions for me?* Only rarely were no questions asked then, as most often people wanted to know about my own opinions on the topics we had been discussing, and what I had discovered in my research thus far. I was, overall, generally open and honest with my interviewees about my own thoughts and hypotheses throughout the research process. My answers to this question often led us to further conversation, and in one instance the interview continued on for over an hour more. In conducting my data analysis I also found that, unsurprisingly, my own responses on what I was discovering evolved and became substantially more sophisticated over time. Many of my ultimate research insights were influenced by my own remarks made to interviewees at the close of the interviews and within our dynamic discussions together.

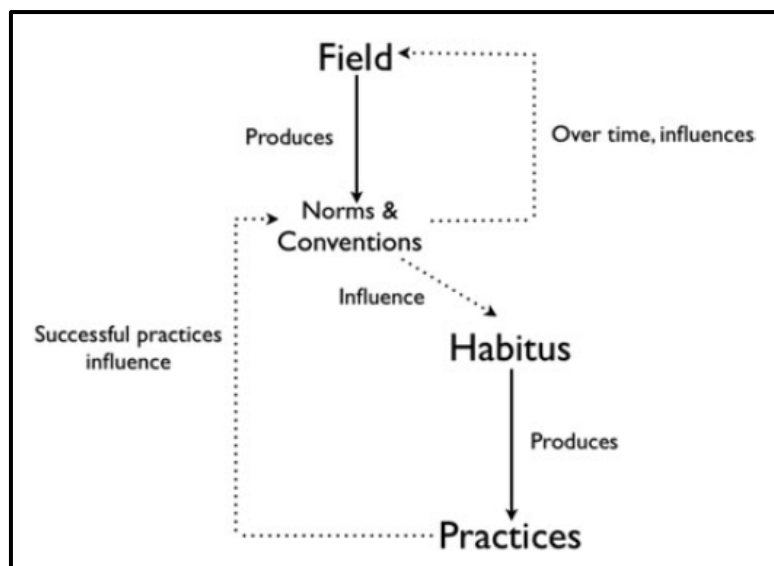
One unexpected benefit of Farmigo's closure was that people were extremely willing and excited to talk to me. There was little concern about corporate confidentiality, because not only did they no longer work there, but also, the company no longer existed. Further, I found that there was a *desire* for this type of dialogue from my interviewees, and a need to process their experiences through communicating. In general my research subjects were grateful for the opportunity to talk about their insights or observations, and for the ability through the interview to process what they had learned in their time at Farmigo. The majority of my interview participants thanked me for the opportunity to talk, either during or following the interview, expressing that they felt a renewed sense of appreciation for their work at Farmigo and the projects that they had accomplished there.

Although many of the interviews were highly critical of the company, most interviewees stated that they felt *better* about their work experiences with Farmigo as a whole after our interview process, because in discussing the company as a model it allowed them to observe and appreciate the work that they had done in a different light. For example, one interviewee said to me at the end of our interview, "thank you for this, I feel so much better now. This was like the exit interview that I never had." Another sent me a message the following day saying, "thanks so much for ... making my opinion of Farmigo feel important, and validating the impact that I had on our office community."

1.5: Data Analysis

My data analysis builds on Spigel’s adaptation of Pierre Bourdieu’s framework for understanding entrepreneurial culture in relation to geographic place (2013). According to Bourdieu, entrepreneurial practice is understood through the intersections of actors’ actions within the context of *field*, *habitus* and *capital*. *Field* is the seemingly neutral social space of rules and power relations; *habitus* refers to the ways that actors interpret the field through internalized intentions, habits and practices; and *capital* determines actors’ position and power within fields (encompassing a range of economic, social and symbolic capitals). Situating actors within the contexts of rules, power relations and practices, as well as taking into account multiple forms of social, economic and symbolic capital, allows for a more complex comprehension of the implications of culture in entrepreneurship than cultural embeddedness alone, which lacks an inclusion of individual agency in analyses (see *Figure 1.2* below). Spigel situates Bourdieu’s framework within a spatial and regionally scaled context in order to conduct entrepreneurial analyses, in general, and to analyze the development of startup firms in particular (2013). Spigel demonstrates that an analysis incorporating the interconnections between *field*, *habitus* and *capital* for entrepreneurial actors can serve to illuminate the ways in which specificities of entrepreneurship become embedded in place, and the complex power relationships occurring within and beyond the boundaries of newly forming companies.

Figure 1.2: Norms and Conventions within a Field (Spigel, 2013, p. 814)



The framing described above is particularly suited to my research as an analysis of a *hybrid* institution attempting to unite two contradictory fields (tech and AFN) across three distinct regions. Spigel explains, “for technology entrepreneurs, technical skills (human capital) are only valuable if they have the savings and investments (economic capital) and ability to sell their vision to customers and investors (cultural capital), which is helped by previous entrepreneurial successes or degrees from particular universities (symbolic capital)” (Spigel, 2013, p. 809). In this research design I

hypothesized that the tech-AFN model represented an intersection of two distinct cultures and valuations of capital, with the VC and tech start-up world on the one hand, and traditional AFNs and the alternative food movement on the other.

Through an analysis of my interview data, the company-generated public content, and my own autoethnographic accounts, I aimed to understand how the cultures of the two worlds of food and tech came together to impact and influence one another within the case study institution. A Bourdieuan approach to entrepreneurship examines the “value” of differing forms of capital (social, cultural, economic, etc.) by the actors working within the entrepreneurial enterprise (Bourdieu, 1986). My data analysis built upon Bourdieu’s framing by also situating the hybrid food system-technology startup institution *in place*, noting not only the cultural and capital differences between these two “world views” alongside the ways in which those differences were situated uniquely in place, examining the actors within the three regions of the case study company’s former operations. To situate Bourdieu’s theories on entrepreneurship in place I rely on Spigel’s geographic and cultural interpretations of Bourdieu’s approach to the interconnections between *field*, *habitus* and *capital* for entrepreneurial actors.

My data analysis incorporates the key themes related to alternative food movements, digital economies, and mission-driven startups outlined in the *Literature Review* as intersecting “fields” that have come together to form the tech-AFN. This analysis uses the data gathered from in-depth interviews, company-generated public content, and my own autoethnographic experiences, to situate the actions and perspectives of the actors involved in creating the case study company and to understand the ways in which actors’ “habitus,” or *interpretations* of the field (Bourdieu, 1990), alongside the differential value of various forms of capital, which in turn influence the hybridization of the tech-AFN itself (see *Figure 1.2* above). Thus, my analysis aims to separate and identify the factors involved in the development of the *culture* and *operationalization* of the tech-AFN model, including practices of institutional decision-making and the ways in which knowledge norms are constructed and legitimated.

This research pays particular attention to the ways that the actors working within the new model of the tech-AFN positioned themselves and the company they worked for within the alternative food movement and as part of (or as separate from) the mission-driven goals of the alternative food movement. Thus, the data analysis explores the life experiences of the different employees (actors), their background and relationship to food, why they choose to work at Farmigo, and their experiences with their work within the institution. Based on this foundational information, this research analyzes the perspectives of different actors regarding the role of Farmigo as a mission-driven company, including attention to the development and interpretation of Farmigo’s stated mission and goals, the ways in which Farmigo impacted the alternative food movement, and the ways in which actors understood that working with food is “different” (broadly construed, see *Chapter Four*).

Similarly, this research examined the role of technology startups and venture capital investment in developing businesses that aim to disrupt the dominant industrial food

system. Therefore, the data analysis also explored the relationship of the institutional actors (the employee interviewees) to the technology startup industry itself, including their perspectives on Farmigo as a technology business, startup culture, the role of the B-Corp, and decisions related to the lifecycle of the company due to venture capital investment funding rounds. Embedded in the understanding of Farmigo as a business is an exploration of Farmigo as a business “model.” In order to unpack the *habitus* about the construction of and perceptions on this model, I examined additional aspects of the institutional operations including: the community-organizing pickup model, the transition to non-local items in the marketplace, marketing and branding practices, and perspectives from employees on whether or not the company was meeting the needs of local producers and consumers. Finally, to gain an understanding of the digital realm of the model, I explored actor perspectives related to the company’s specific website, app, and digital interface, as well as to online groceries in general, including comparisons to other food delivery models.

As mentioned above, all analysis was securely situated in *place*. All entrepreneurial actors are situated in a “local” field that determines cultural norms and social and political “rules” or expectations due to geographic proximity (Spigel, 2013). Arguably the power of the “local field” is enhanced in an enterprise aimed at supporting or leveraging a distinctly local market such as “local food.” Thus, the framing for all data analysis is placed within the geopolitical context of the three regions in which the case study was operating: the New York metropolitan area including Long Island and Northern New Jersey, the Seattle-Tacoma region, and the Bay Area of California. Each of these places has a distinct relationship to both the alternative food movement and the rise of the technology industry, and these relationships inform not only the actors’ own practices with the case study institution, but also the company’s reception and growth within each region. Thus, through this work each interviewee is identified anonymously with a geographic indicator, as a randomly generated number and the abbreviation of the state in which the employee lived and worked (CA, NY or WA).

Ultimately, this data analysis examined the role of venture capital funding in influencing the development of organizational mission and goals, and the positioning of food as a commodity in comparison to the food movement’s positioning of food as a human right. The analysis included attention to the privileging of “local,” “healthy,” and “sustainably-ethically grown” foods within the institution along with questions regarding the ways that “good food” and “good consumers” are established, advocated for, and reproduced in this model. Data analysis also explored the ways that alternative food networks (AFNs) are complicated by the move to digital market spaces that by their very nature shift the “authenticity” of the face-to-face interactions previously viewed as integral to the identity of an alternative food market. Therefore, I examined the ways in which “authenticity” was reproduced (or wasn’t) within the digital market space, including an analysis of the development of “trust” within this new market model. I used actor-network theory to gain understandings into the ways that individual actors involved in developing the tech-AFN company positioned themselves and their work simultaneously within the tech world and within the alternative food movement, in order to understand the ways in which the actors’ development of this

hybrid *habitus* informed the norms and power dynamics within both fields as they intersected across each of the three different regions.

1.5.1: Ethnographic Analysis: Interviews and Autoethnography

This research project collects and analyzes the stories and perspectives of tech-AFN case study actors', including myself, in order to find the dominant and counter-narratives of mission and motivation taking place in the creation of this new market model. I use these stories as a lens through which to understand the ways that individual experiences fit within or form new social patterns, meanings and power relations (Bell, 2003) within the intersection of the tech and food worlds. Therefore, the overarching goals of my data analysis process are to develop an understanding of the impacts of the framing of alternative food within the growing tech sector seeking to re-shape the alternative food marketplace through the establishment of the tech-AFN model.

Ethnographic data analysis synthesized the information gathered from interviews and autoethnographic writings and reflections. Analyses of data gathered from the interviews explored the different ways that organizational cultures and politics influence staff and leadership decision-making, and the privileging of certain ideas or institutional processes over others. Analyzing the motivations and cultures of the individuals involved in digitizing the AFN helped to situate this new market model within a broader sociocultural framework. In addition, exploring employee understandings of the corporate vision, mission, and goals, and their reactions to them, deepened an understanding of the processes taking place within the development of these new tech-AFN models.

All interviews were coded with an anonymous identifier, recognizing only the region in which the employee worked at the time of the company's closure. All interviews were transcribed and transcription sections were grouped within the key themes identified earlier. Emic and etic data codes were developed based on the emergence of key themes from both relevant literature and from the research process. As is standard in ethnographic research, my data analysis incorporated descriptive and categorical codes as well as analytic and thematic codes in all interview and autoethnographic data review (Cope, 2005). In line with ethnographic practice, I approached data coding as a dynamic process, and thus as an opportunity for brainstorming and for developing additional connections, relations, and patterns across key themes and concepts throughout the data analysis process (Watson & Till, 2010).

In many instances data coding and analysis occurred simultaneously to the writing and outlining phases of this research. Autoethnographic data particularly informed the research process in two ways. First, my insider experiences allowed for a high-level of understanding of the case study's institutional dynamics, integral to the initial research design. Second, I incorporated notes from my own writings while employed by Farmigo in order to gain deeper insight into the *habitus* that I was functioning in as a former employee. Using the Bourdieian framework described above, I explored how

the case study employees (including myself) positioned their role in the development of the tech-AFN, and thus gained a broader understanding of the tech-AFN in alternative and industrial food systems, and in processes of system change.

To provide a richness of context throughout this writing I present the voices of the institutional actors, both of the interviewees and of myself, as well as the voices of the consumers through their social media posts. Quotes from interviewees are incorporated throughout the text and marked in italics. In addition, in several instances I provide “quotes” from myself, outlining my own experiences working at the case study company. These autoethnographic quotes are demonstrative of the ways in which my personal perspective influenced the analysis and outcomes of this research. My autoethnographic “voice” is presented in italics within textboxes and is designed to demonstrate personal perspectives on stories in line with those from other interviewees, informing the various topics addressed across analytical chapter sections.

1.5.2: Discourse and Content Analysis

The discourse and content analysis portion of this research project analyzed the language used (and absent from) the consumer-facing promotional materials and web information generated by the company case study. I used this analysis to situate how the case study organization attempted to differentiate itself within the market, how they outwardly positioned their mission and goals, and the aspects they appeared to highlight and uphold as particularly important for consumer buy-in of their model. The discourse analysis process followed Fairclough’s three-pronged approach, incorporating textual analysis with an analysis of discursive and social practice (Dittmer, 2010). Textual analysis examined the case study’s promotional materials in terms of word-choice, rhetoric, and metaphor, noting the specific language used to highlight the benefits of the individual products being sold, as well as the language used to describe the “big picture” mission and values of the company.

Content analysis also incorporated a discursive analysis, including where and how the information was displayed to the consumer. This discursive analysis noted how present, accessible or challenging the corporate information was to obtain, as well as the contexts within which the text was presented. The content analysis included a social analysis of the ideologies that the company presents, including the positioning of “good food,” and this social analysis explored key themes of knowledge construction and legitimation regarding the assumptions around “alternative, good, local, healthy, and sustainable” food choices. Exploring the ways in which the organization’s promotional materials were packaged and presented was essential in understanding the way that food was positioned in the tech-AFN case study, and complemented the interviews and autoethnographic analysis by situating the ways the case study company packaged and presented *itself outwardly* in comparison to the ways in which the *employees* at the agency *perceived the internal* company processes and goals. It is important to note that due to the company’s closure in the midst of this data collection process, all discourse and content analysis was captured from personal or archived

sources, and thus, unfortunately, present only a partial picture of the public-facing content generated. Quite a large quantity of content was analyzed, however, and I have high confidence that the materials reviewed are highly representative of the company's material output as a whole.

Taken together the data collected through the case study company's content, in-depth interviews, and autoethnographic observations, present a strong picture of the internal workings of the case study tech-AFN institution. The data analysis process relied on the reinforcement of each of these three data sources for all of the claims generated in this research. Data analyses at each stage served to complement and promote the development of the theories and arguments presented throughout this document.

Chapter Two: Literature Review

This chapter reviews the relevant literature used in the research analysis and project design. There are three sections in this chapter representing various fields of the literature discussed in each of the following three analytical chapters. The first section reviews current discourse on alternative food networks and the alternative food movement, including contemporary critiques on consumer behavior of “non-reflexive localism,” and an overview of the current discourse on equity and inclusion concerns in alternative food networks. The second section traces the evolution of the grocery market towards the digitization of grocery retail, including a review of both the power structures and equity concerns inherent to digital spaces broadly and to digital food markets in particular. The final section of this chapter discusses the structures of alternative economies inherent to alternative food networks, and reviews the clash in ideologies between alternative food economies and the neoliberal venture capitalist model fundamental to the development of new technology startups. This final section further explores the commodification of food within alternative and neoliberal market spaces, as well as the current debate on the relationship between ethical consumption and civic engagement, placing that debate within the context of the tech-AFN.

2.1: Alternative Food: Movements and Markets

The following section reviews the evolution of alternative food markets within the alternative food movement, including an overview of contemporary critiques of alternative food networks, non-reflexive localism, and concerns of equity and inclusion in alternative food market spaces.

2.1.1: Alternative Food Networks and the Alternative Food Movement

This research focuses on the consumer turn towards online grocery retail as an entry point for food system change. In particular, this project examines the growth of new *alternative* online food markets supported by venture capital funds with goals of disrupting the entrenched industrialized food system. The industrial food system relies on a network of highly globalized, large scale, high yield, and resource and input-intensive agricultural practices. In contrast, the alternative food system is defined through social and environmental production and retail practices that are equitable, sustainable, and that provide a more “authentic” relationship between food consumers and producers (Venn et al., 2006). The term Alternative Food Networks (AFNs) implies the entire *network* of producers, consumers, and other actors engaged in the alternative food supply chain, and is often defined through its opposition to the industrial food model (Renting, Schermer, & Rossi, 2012; Wilson, 2013). Traditional AFNs are generally smaller in scale than industrial models, contain shorter supply chains, and practice organic and holistic production methods (Jarosz, 2008). Importantly, AFNs are situated within a *value system* that is committed to goals of social and environmental justice, food localization, and transparency and trust across consumer-producer relationships (Jarosz, 2008; T Marsden et al., 2001; Venn et al., 2006).

AFNs are challenging to codify in part because they at the same time as collective, hybrid, partial, and geographically-situated entities (Whatmore & Thorne, 1997). Research examining traditional AFN commodity chains finds them to be “entangled webs” of social, economic, and institutional relationships dependent on social dynamics of trust and cooperation (Jarosz, 2000; Jarosz, 2008; Qazi & Selfa, 2005). In 2006 researchers Venn et al., noting that there was little clarity on the definitions or boundaries of AFNs, attempted to categorize all AFN models by model types (see *Figure 2.1* below), finding a need for additional research on differences between AFN models and on the perceptions of actors involved in creating the AFNs (2006).

Figure 2.1: Categories of Alternative Food Networks (Venn et al., 2006)

| Category | Explanation | Examples |
|--------------------------------|---|--|
| Producers as consumers | Schemes where the food is grown or produced by those who consume it. Often promote healthy lifestyles. Extent of commercial orientation varies. Produce is usually sold on a local level but may be targeted at specific groups, e.g. low incomes, ethnic minorities. | Community gardens Community centres with specific food projects Community food cooperatives Allotment groups |
| Producer–consumer partnerships | Partnerships between farmers and consumers, where the risks and rewards of farming are shared – to varying degrees – due to subscription or share arrangements. | Community Supported Agriculture (CSA) |
| Direct sell initiatives | Farmers or producers cut out middlemen and sell direct to consumers. Can be direct face to face or over the Internet. | Farmers markets Farm gate sales Adoption/rental schemes Mobile food shops Box schemes Producer cooperatives |
| Specialist retailers | Enable producers to sell to consumers more directly than through conventional supermarkets. Often sell high value-added, quality or speciality foods and may be targeted at tourists. | Online grocers Specialist wholesalers Tourist attractions |

Many emerging startup companies in the online grocery world are now positioning themselves as alternatives to the status quo by using language from traditional AFNs in order to engage consumers that are attracted to notions of healthy, sustainably-grown, and locally-produced food items. Rather than attempt to fit this new model within existing alternative or industrial food frameworks, this research presents the tech-AFN as a fluid and dynamic model that bridges the alternative-industrial binary, situating it as a hybrid. An attempt to place the tech-AFN within Venn et al.’s framing (2006) above would likely position it between direct-sell and specialist retailers. However, when their research was originally conducted a decade ago (Venn et al., 2006), tech-AFN models had not yet reached the industry maturity that have today. Thus, this research project sought to explore the ways in which traditional AFNs are complicated by the move to digital market space transactions, which through their very design shift the

“authenticity” of the face-to-face producer-consumer interactions were previously viewed as integral to the identity of a alternative food networks.

On the one hand, the rise in online food purchasing and the emergence of alternative distribution models creates an opportunity to support producers of healthier, more environmentally sustainable, and more socially-just foods. However, the growing trend of tech-AFNs may arguably *enhance* inequalities in food access and availability, as lower income consumers are priced out of these higher-cost grocery markets or are excluded altogether through racialized, cultured, or gendered assumptions of market spaces (Guthman, 2008b, 2011; Slocum, 2011). Therefore, while the model of the tech-AFN may be gaining traction in the public sphere as an alternative market space, in reality it may be *increasing* inequalities in food access, and thus actually *supporting* the growth of the dominant industrial model. This research unpacks the implications of the growth and development of the tech-AFN model for consumers, and explores both the spaces of exclusion and the spaces of possibility for long-term food system equity and environmental sustainability goals.

2.1.2: Alternative Food Market Models

Alternative food markets are generally positioned in ideological opposition to the global industrial food system’s reliance on heavy chemical inputs in food production and the international distribution of highly-processed goods. Examples of current alternative market spaces include farmers’ markets, food cooperatives, community supported agriculture (CSA) models, and farm-to-institution programs. These alternative markets tend to source goods that are produced locally and sustainably, and that promote labor equity along the food chain. These alternative markets function within, though on the periphery of, traditional market systems; such that while food still traded as a commodity within alternative market models, it is done so within an awareness of social and environmental concerns (Wilson, 2013).

A powerful example of current alternative food market spaces is the community food cooperative. Food coops have existed within the alternative food movement since the 1930s, although the “new wave” of coops most common today generally emerged from the grassroots political activism of the 1960s and 1970s. Unlike a traditional food marketplace, cooperative members are empowered to participate in the governance of the business, and the profits generated are either reinvested back into the cooperative itself or are returned to the members in the form of benefits. Cooperative food markets hold a key role in the evolution of the alternative food movement as early adopters in the sale of local and organic products. Coops are also strong advocates of consumer education and information, which mainstream grocery stores have traditionally not been. Thus, cooperative food markets participate securely within the mainstream market economy and yet also serve as a powerful example of alternative market spaces that reject many neoliberal ideals by focusing beyond the bottom line of profit and investing in consumer educational goals and ideological values. (Zitcer, 2015)

The other high-profile example of an alternative food market space is in the farmers' market. Farmers' markets are spaces in which food producers within a close geographic range gather periodically (generally weekly) to sell their goods. Producers selling at farmers' markets tend to be smaller-scale, independent, and are either certified-organic or use organic growing practices. Farmers' markets serve as spaces within which consumers meet and interact with the producers growing and making their food, and, in turn, food producers have the opportunity to interact with those who are consuming their products. The social relations and interactions between producers and consumers at the farmers' market creates a unique and valuable market space that is unlike any other. Thousands of farmers' markets exist currently across the United States, and the quantity of markets has grown dramatically since the passage of the Farm-to-Consumer Direct Marketing Act in 1976 (Brown, 2002). Farmers' markets, like food coops, serve not only as spaces of economic market transaction, but also act as vibrant public spaces, community symbols, spaces for community connection and interaction, opportunities for diverse local economic development, and sites of consumer education and engagement (Morales, 2011).

Farmers' markets also place the demands of food distribution primarily on the food producer, who must travel to areas of population density in order to accompany their product sales, adding the burdens of transportation, marketing, and retail to an already full-time and low-paying industry. Further, while modern farmers' markets have existed in the United States since the 1960s, and are increasing in popularity in some urban centers (Morales, 2011), the dominant industrial agribusiness system has grown far more exponentially in terms of scale and power over this period. Farmers' markets present a valuable model of alternative food distribution, but they have not yet succeeded in unbalancing the dominant global food system. Entrepreneurs of the tech-AFN model aim to use technological innovation to enhance the traditional AFN farmers' market model such that it will unbalance the dominant system and "disrupt" the current mainstream food market.

2.1.3: Critiques of Localism and AFNs

The emphasis on local food in the alternative food movement first gained traction in the United States in the early 2000s. At that time, the "solution" to industrialized food was framed as the "relocalization and repersonalization" of the food system through increased connections between food producers and consumers (Hinrichs, 2003; Hinrichs & Allen, 2008; Myers & Sbicca, 2015; Selfa & Qazi, 2005). Local food systems comprised of small-scale and biodiverse farms were advocated as being more sustainable and more resilient than the industrial food model. The promotion of local food was also positioned as instrumental in supporting local economies and creating jobs, serving as a driver of civic engagement and local democratic participation, in addition to providing increased access to healthier and more nutritious foods (Myers & Sbicca, 2015).

The rise of urban development and the growing consumer demand for local and seasonal products led to a rural restructuring of small-scale farms around urban

peripheries (Jarosz, 2008). However, the growth of AFNs around urban areas has not necessarily translated to a higher quality of life or livability for small-scale food producers (Jarosz, 2008). The rise of the tech-AFN model in metropolitan settings thus provides a potential advantage to small-scale producers located nearby. Producers selling through online markets are no longer responsible for the distribution or marketing components of their food retail. Similarly, tech-AFN producers are no longer ultimately responsible for the majority of food delivery, nor for the physical accompaniment of their products at the market. There is no physical food display in an online market, and therefore there is less food waste. Further, due to the low overhead costs of not maintaining a physical grocery store space, tech-AFN producers receive a higher percentage of sales than they do through the typical wholesale process (see *Chapter Four* for details). In these ways the new tech-AFN models could be viewed as largely supporting the livelihoods of local and small-scale food producers. However, *Chapter Four* troubles the perception of the tech-AFN as supporting the work of traditional AFN producers, and reviews the implications of conflicting goals between traditional and tech-AFN models.

Localized food systems are seen to have a range of benefits, beyond merely supporting local food producers, that include large-scale positive ecological, economical, political, and physiological outcomes (Myers & Sbicca, 2015). Obviously, however, the proximity of the food producer and consumer alone does not itself create a biodiverse, small-scale, sustainable, healthy, accessible and alternative food system. Yet, the notion of “local food” as “better food” has gained traction and market value across the nation, demonstrating a lack in reflexivity on the original intentions of “local food” promotion from the alternative food movement.

There have been a myriad of critiques of the “local food movement.” Food that is produced and marketed on a local scale, even certified organic food, can still be produced through industrial processes reliant on heavy chemical inputs and exploitative labor practices (Jarosz, 2008). Further, increased consumer demands for local, seasonal, and organic products do *not* necessarily translate to decreased environmental footprints (Hinrichs, 2003), nor to better livelihoods for rural food producers (Jarosz, 2008), nor to increased civic participation in democracies (Born & Purcell, 2006), nor to the increased promotion of food justice or food access goals (DuPuis et al., 2006). In other words, *local food does not equal alternative food*. Instead, food scholars have warned that championing local food as an alternative to the dominant globalized system can mask social justice concerns and instead intensify local inequalities (DuPuis et al., 2006). In this way, the establishment of a binary between local and globalized foods may actually serve to *support* the maintenance of the global industrial food model (Campbell, 2009). Critics argue that treating localization as the end-goal for system change is a “trap” of non-reflexive localism now pervasive within the alternative food movement (Born & Purcell, 2006; DuPuis & Goodman, 2005). This research sought to address the concerns raised about non-reflexive localism in the alternative food movement by re-centering the role of AFNs, placing less emphasis on the *local* but rather returning to an emphasis on AFNs as formed and grounded in *place* (see *Chapters Three and Five*).

A prominent critique of AFNs is that they “operate more like niche markets for middle class white consumers rather than presenting a transformative politics open to all,” (Wilson, 2013, p. 722). Similar critiques list concerns about exclusion and inequality in AFNs relating to the cultural, social and political processes of producing and purchasing certain types of foods (Alkon, 2014; Allen & Guthman, 2006; DuPuis et al., 2006; Guthman, 2008b; Mares & Alkon, 2011). Alternative food markets are often invisibly raced and classed, resulting in alienation and displacement of lower income and non-white consumers in these market spaces (Anguelovski, 2015). Some critics also argue that the products available in AFNs cater to elite consumers and thus fail to raise consumer consciousness or lead to a true transformation towards an equitable and democratic food system (Johnston, Biro, & MacKendrick, 2009a; Mares & Alkon, 2011).

Notably, critiques regarding exclusion and inequality concerns also span the cultural, social and political processes involved in “alternative” food systems and networks (Alkon, 2014; Allen & Guthman, 2006; DuPuis et al., 2006; Guthman, 2008b; Mares & Alkon, 2011). Alternative food markets are often invisibly raced and classed, resulting in the alienation and displacement of lower income and non-white consumers (Anguelovski, 2015). Many food scholars argue that the lack of reflective processes on the goals of sustainability and social justice in “alternative” markets creates alternatives that are “undemocratic” and “unrepresentative,” as well as being “socially homogenized and exclusive” (DuPuis & Goodman, 2005). These critiques of AFNs are particularly salient for a new corporate model that is being lauded for its “social benefit” in providing “good food access,” and are explored further throughout all following chapters.

In sum, traditional AFNs are critiqued as being elite, inaccessible and non-reflexive on their own whitened cultural histories and privileges (Anguelovski, 2015; Guthman, 2008b; Zitcer, 2015). Conversely, however, these AFNs simultaneously can provide an entryway into the middle class formations of “ethical” neoliberal citizenship through food consumption choices (Zimmerman, 2015). While upscale grocery markets such as Whole Foods may very well be alienating and exclusive to consumers, they do also provide opportunities for non-elite consumers to participate in elite consumption spaces (Johnston & Szabo, 2010), while the tech-AFN does not. See *Chapter Four* for further discussion on the amplification of food equity and access issues in tandem with issues of equity and access in digital market spaces in the tech-AFN model.

2.2: Digital Food Markets: Power Structures in Digital Food Space

The following section discusses the history of grocery markets and the role of digital market spaces in disrupting the dominant global industrial food system. This section also includes an overview of power structures and power dynamics of digital markets, and reviews concerns of equity and inclusion in digital space and digital food retail.

2.2.1: The Evolution of Grocery Retail: From General Stores to Online Markets

Beginning in the late-eighteen hundreds, towns in the United States were served primarily by general and county stores housing a wide variety of merchandise including food, clothing and tools. Towards the end of the nineteenth-century these general stores began to be replaced by specialized grocery stores and public markets that supplied a wider inventory of newly accessible goods due to advances in train and transportation technology (Lucky, 2008). The increasing growth and density of urban areas eventually led to the development of wholesale goods, distribution chains, and the grocery-focused market models that we are familiar with in the US today.

By the early nineteen hundreds grocery stores were prevalent in urban and suburban areas across the nation, though shopping at the grocery store remained a highly classed action. At that time, urban middle and upper class citizens had the majority of their groceries delivered weekly to their homes – picture the quintessential milkman – or relied on grocery pickup by their household staff. The grocery store as it exists today truly emerged around the nineteen-teens. By 1916 grocery store chains began to develop self-service stores where consumers, then primarily women, could walk through the store to select their own grocery products (Tolbert, 2009). The development of this *self-service store model* transformed both the spaces of grocery store *and* the cultural context of purchasing food (Tolbert, 2009). Although personal grocery shopping carts did not gain popularity until the mid-1930s (Grandclément, 2008), by the 1920s mainstream grocery stores were clean and modern spaces, in which the market space itself became a marketing tool and site of social capital formation (Tolbert, 2009). The rise of mass-produced, individually packaged, and brand-recognizable products supported the self-service trend in grocery stores. Stores relied on the name-brand and national advertising of products to maintain consumer trust, and they filled their shelves with these products in place of the smaller-scale and locally and seasonally-produced items that had been previously sold (Tolbert, 2009).

The next major shift in grocery retail began in the mid-1970s with the growth of the “big box” grocery model. Wal-Mart was an early adopter of this model, benefiting from “economies of density” by decreasing delivery costs, diversifying products, and locating outside of urban centers, thus transferring the cost of transportation on to the consumer (Ellickson & Grieco, 2013). The growth of Wal-Mart and other big box stores demonstrated a shift in consumption patterns towards maximum selection and lower costs. Smaller and independent grocery stores were unable to compete with the low prices of Wal-Mart and similar supermarket chains and they began to close. The lack of grocery stores in urban areas led to a rise in “food deserts,” primarily in lower income neighborhoods, in which residents did not have access to groceries. The growth of “supersize supercenters” such as Wal-Mart is also positively correlated with a rise in obesity rates, theoretically due to the oversaturation of the foodscape with cheap and highly processed food (Courtemanche & Carden, 2011). Looking at impacts from the growth the Wal-Mart chain in particular, researchers have calculated a 10.5% rise in obesity since the late-1980s, primarily impacting the health of women, low-income, and rural residents (Courtemanche & Carden, 2011).

The development of the Wal-Mart supercenter also had implications for the grocery industry itself. The growth of Wal-Mart led to major mergers across the American grocery industry, such that the top five grocery firms to date – Walmart, Kroger, Costco, Safeway and Supervalu/Albertsons – now own over half of the industry market share (Mamen, 2007). Economists maintain that in order to uphold a competitive market the top four firms in any sector must maintain below forty percent of the market share, thus, by this definition the current grocery industry in the United States is currently positioned in a monopoly status (Mamen, 2007).

The continued rise of the supercenter model also led to a shift in food distribution. Supermarkets in the 1970s required backroom spaces for unloading and restocking their inventory, but by the 1980s and 90s grocery chains built centralized distribution centers to receive their diversity of goods, with individual trucks taking all items to individual stores (Wrigley, Lowe, & Currah, 2013). The consolidation of grocery firms led to the consolidation of distribution systems, such that all major retail chains in the country today act as self-distributors, controlling their own transportation and warehouse spaces (Mamen, 2007). Corporate control over grocery distribution has had major implications on food prices, food access, food quality, and the regulation of labor practices across the food chain. Further, the economy of scale within the current system of industrial food distribution leaves little room for the entry of small or medium-sized food producers within their local distribution areas.

The last decade has brought the rise of digital food market models (discussed further in the *Introduction*). Current digital food marketplaces can be grouped in three distinct categories. The easiest and cheapest online food marketplace model is known as the “bricks and clicks” model. In this model a food retailer places an existing market online, simply digitizing a pre-existing market of goods. In contrast, the most expensive and complex option for companies that do not have preexisting “brick and mortar” stores is the “pure-play model.” The “pure-play” model includes the creation of a new marketplace with no storefront, existing entirely online, in which goods stocked for delivery come from a centrally located fulfillment warehouse. The “pure-play” model faces many barriers to financial success, including a lack of name recognition, low rates of customer familiarity and trust, and the inability of customers to see or sample goods prior to purchase. The third online grocery retail model is a hybrid between the “bricks and clicks” and “pure-play” options. In this last scenario existing grocery retailers contract an intermediary to run the website and customer management components of their online marketplace, thus combining an existing grocery market’s familiarity to customers with the logistics support of a third-party organization that specializes in digital marketing, transport and sales. (Murphy, 2003, 2007)

The tech-AFN is a “pure-play” online grocery model, reliant on existing alternative food networks and consumer demand to counter-act barriers such as name recognition and trust. In this section I focus on the tech-AFN within the digital food marketplace in order to uncover the ways in which AFNs are shifting as a result of increased digitization. A broad review and analysis of the impacts and implications of the

digitization of *all* food markets is outside of the scope of this research, but would provide valuable insight into the shifts currently being undergone by the food industry as a whole.

2.2.2: Decentralizing the Food System through Digital Means

Currently, in the current United States a single company, Wal-Mart, controls 35% of the market share, with only five companies controlling more than 50% of the entire market (Mamen, 2007). This corporate consolidation of the grocery market negatively impacts producers, consumers and distributors all along the food supply chain. To date, all major American groceries have centralized their purchasing and distribution systems through vertical integration such that economies of scale permeate not only industrial food production, but also distribution systems; making it increasingly challenging for alternative food markets to become truly competitive within the current economic system. Further, agricultural and food safety regulations are increasingly geared towards goals of industrialized agriculture, creating additional and often insurmountable barriers for smaller-scale, independent and alternative food markets (Forcum, 2014).

There are questions about whether the entrenched extent of vertical integration within the agribusiness industry has left any room for the expansion of strong alternative food networks. Yet, some entrepreneurs and venture capitalists strongly believe that the emergence and increased adoption of the digital grocery marketplace offers a new space for alternative food market growth, noting that the digital grocery space has not yet been dominated by the main grocery industry. In practice, both the consumers and producers of alternative foods are increasingly connecting with small technology startups in order to facilitate grocery and meal transactions in a sector that seems poised to grow (see *Introduction* and *Chapter Three* for more on the growth of the online food industry). Examples of successful tech startups that have disrupted existing industries include companies like *Airbnb*, *ZipCar*, and *Uber*, which have drastically upended traditional hospitality and transportation sectors. Importantly, the increase in venture capital investments in alternative food-tech companies does *not* appear to be motivated by activist goals of system change, but rather by the successful trend of tech startups capitalizing on the increased digital facilitation of collaborative consumption (Forcum, 2014). VC investors in tech-AFN startups are hoping to do to the grocery industry what *Uber* has done to transportation, to shift the purchasing model online, and to do so with *their* market model. The contrasts between goals of market disruption for capital gain and goals of market disruption for the alternative food *movement* are discussed in further detail in *Chapter Three*.

Researchers in economic geography have traced the ways that new technologies influence economies. Yet, there has been a historic lack of attention within Geography on the spatial and organizational impacts of the increased adoption of internet-facilitated consumption (Wrigley et al., 2013). Arguably, the rise of collaborative consumption in e-commerce presents a new “disruptive” technology, one with the

potential to alter the business practices and economies of industries (Wrigley et al., 2013), such as the example of *Uber* and the transportation industry discussed above.

Online grocery markets are arriving relatively late to the technology startup scene, likely due to concerns based on the failures of early online grocery models in the 2000s. The online grocery collapse of the 2000s was initially blamed on poor business models; however, new research demonstrates that customer-relation activities (advertising, promotions, loyalty programs, etc.) are the most essential factors for online grocery success (Lucky, 2008). This shift in attention towards customer-relations is potentially good news for the tech-AFN startup hoping to capitalize on the growing public perceptions of “good food” from smaller-scale and local producers outside of the mainstream grocery industry, and is likely one reason why many online groceries are seeking to model after traditional AFN food chains. A potential flaw in this motivation is that financial success for traditional farmers’ markets has been attributed to in-person connections and social relations of trust and cooperation between producers and consumers (Jarosz, 2000). Therefore, this research explores the dynamics of the development of trust in digital AFN markets and the role of marketing and consumer expectations in the establishment and success of tech-AFNs.

Scholars Wrigley et. al. claim that the long-term impacts of e-commerce as a disruptive technology are underestimated by scholars, and they urge researchers to examine the ways in which corporate philosophies and organizational structures of transnational corporations are changing current market systems (Wrigley et al., 2013). Rather than examining the e-commerce disruption occurring *within* existing major corporations, however, this research aims to explore the spaces of possibility of these new *alternative* models in disrupting the *existing* food industry. For an alternative model that defines itself through shrinking the supply chain such that producers and consumers can meet and interact with one another in a face-to-face relationship, it is unclear what impact digitizing that relationship will have on its economic success (Bathelt & Turi, 2011). Thus, throughout this research attention was paid to the actions and awareness of consumer-producer relations in these digital food markets.

2.2.3: Power Structures in Digital Space

New technologies are produced by and with the historic interactions of cultural, social, political, economic and material forces (Leszczynski, 2013). Further, digital environments are not only influenced *by* but are also influencers *of* the ways that users imagine and experience their surroundings (Ash, Kitchin, & Leszczynski, 2015). Digital food markets thus arise in the meeting place of historic grocery store models with embedded social and cultural dynamics of purchasing food, and with the political and economic forces behind the financial success of industrial agriculture and the rise of the supersize store model. In the online farmers’ market tech-AFN model the grocery industry meets the rise of the venture capital-backed startup, which in turn meets the alternative food movement, and thus a new approach to online economies is born, with a unique socio-economic-cultural-political history in the alternative food movement. In

this framing the tech-AFN is seen as much more than just a digital space for the marketing of food; rather it becomes an independent historic entity of its own.

In order to truly understand the tech-AFN model, it is also necessary to situate the existence of the online marketplace within geographic discourse on the digital divide, and to review the implications of exclusion that are specific to transactions in digital space. Traditionally, the digital divide was framed as the unequal geographic and social access of digital technologies and infrastructures (Pritchard, 1999). While access to digital technologies is increasingly widespread, it is not universal, and the traditional digital divide remains a valid exclusionary concern. Discussions of the digital divide have expanded, however, to incorporate the ways in which the *content* of the internet itself is often created for a raced or classed user (Ash et al., 2015). Scholars of digital inequalities review implications *beyond* the digital divide in diverse aspects that include healthcare, education and employment. These scholars demonstrate that inequalities in digital spaces interact with and reinforce social, economic, and political inequalities in the physical world (Gilbert et al., 2008), such that spaces of exclusion do not exist solely inside or outside of digital spaces but rather are influenced dynamically between users' physical and digital experiences (Graham, 2011).

As markets become digitized the accumulation of "digital capital" is becoming increasingly important to attain essentials such as knowledge, employment, services and goods (Halford & Savage, 2010; Warf, 2001). While there is much written on the implications of the digital divide on access concerns broadly, there is a lack of attention within the literature to the specific impacts of the rise of online food retail and subsequent concerns for food access. As noted above, food markets are not only sites of economic transaction, but are also spaces with distinct social relations, gender dynamics, local politics, ideologies and aspirations (Deutsch, 2010). This research seeks to situate concerns of digital inequalities specifically within digital alternative food markets. Markets spaces lend themselves towards complex moral and ethical decision-making (Busa & Garder, 2015), personal reflexivity, and formations of class identity (Johnston & Szabo, 2010). Transferring the social and cultural spaces of the supermarket to a digital marketplace has complicated and interconnected social, personal, and political implications, especially for alternative food markets. While a deep analysis of the relationship between food access and the digital divide is unfortunately outside the scope of this project, this research probed the awareness and intentionality of the creators of online alternative food market models in regard to food access, and reviewed potential implications for equality and inclusion in digital-alternative food markets (tech-AFNs).

To examine the relations of actors in the tech-AFN I drew from Bourdieu's positioning of power, situating entrepreneurs, financial backers, employees, consumers, and producers within power structures in local and non-local fields (Spigel, 2013). The "rules" of the field and the power structures surrounding them influence all actors, particularly in tech startup settings that have high rates of economic risk influencing all strategic decisions (Spigel, 2013). These new digital market spaces, and the material distribution systems set up to accompany them, are influenced by power systems

across scales, although the influences of these power structures tend to be invisible in digital spaces and technologies (Leszczynski, 2013). Exploring these invisible structures of power, and their impacts, is particularly interesting for a new “disruptive” technology that itself seeks to shift power structures, and thus the “rules” of the actors, within an existing industry (Spigel, 2013). Thus, this research unpacked the roles of the actors influencing, and influenced by, these “rules” and power structures of the tech-AFN in order to assess the impacts and implications broadly.

2.3: Neoliberal Venture Capitalism meets Alternative Economies

The following section reviews the connections between corporate accountability and venture capital funding in the rise of the tech-AFN market model. This section engages with debates in the literature on ethical consumption and civic engagement, placing ethical consumption in the tech-AFN within that debate. In addition, this section reviews the tension of food’s position as a commodity within a hybrid market-space, and discusses the tensions inherent to the need for expansion of a place-based model for venture capital growth goals.

2.3.1: Corporate Accountability and the B-Corp

In many ways the tech-AFN aims to connect the *mission* of the alternative food movement with the digital marketing model. In order to address the role of marketing and the “mission” in the tech-AFN (discussed in more detail in *Chapter Three*), I briefly review the history of corporate accountability and greenwashing here. Corporate accountability, or corporate social responsibility (CSR), stems from the belief that corporate firms hold a powerful role in promoting sustainable consumption, and that the goals of economic growth can be combined with environmental preservation goals to promote increased sustainability (Lehner & Halliday, 2014). Originally greeted with public enthusiasm, CSR practices quickly became targets for greenwashing concerns. Greenwashing is defined as being the purposeful “*disinformation* disseminated by an organization so as to present an environmentally responsible public image,” (Vos, 2009, p. 673 emphasis mine).

Greenwashing traditionally referred to the activities of large corporations and was centered on environmentally-focused messages. The term has expanded, however, to incorporate broad organizational structures and diverse social and political movements beyond only environmentalism (McCaffrey & Kurland, 2015), such as food. Greenwashing is generally used to support economic growth by generating goodwill either internally, from ethically-engaged employees, or externally, by influencing value-driven consumer behaviors. While some argue that greenwashing is unethical in that it promotes false claims for profit motives, it is not technically classified as fraudulent from a legal perspective because corporate growth is the bottom line of corporate responsibility, and greenwashing is generally employed for goals of financial gain (Vos, 2009).

The ethics of corporate greenwashing become murkier with the emergence of the Benefit Corporation, or B-Corp, a new type of corporate model positioned in between for-profit and non-profit organizational status. The legal categorization of the B-Corp was first formed in Maryland in 2010, and has since gained rapid popularity in the United States (White III, 2014). Unlike traditional non-profit organizations, B-Corps are designed to be profit-generating. Unlike a traditional for-profit, however, the B-Corp is not beholden to economic growth as its bottom line, but rather is designed to achieve a dual “bottom line” of both economic growth and social responsibility. The requirements for demonstrating “social purpose” have little or no barriers to entry (Ho, 2014), however, lending the B-Corp model little credibility in terms of achieving social justice goals. In addition, the organizational director of a B-Corp cannot legally be held liable for a company’s “failure to create, or even *pursue*, a general or specific public benefit,” (White III, 2014, p. 345 emphasis in original). Thus, though the legislation that governs the regulation of B-Corps is designed to improve transparency and accountability in order to *prevent* greenwashing, by answering to a “double bottom line” a B-Corp is arguably beholden to no greater goal at all.

Current legal briefs raise concerns about benefit corporation accountability and the need to monitor fraudulent entrepreneurs seeking to take advantage of investors that are less likely to be critical of seemingly well-intentioned social or environmental goals (Ho, 2014; White III, 2014). If the legal system is concerned with B-Corp accountability to public benefit goals because of fraud in not even *having* a benefit goal, it is important to question a more nuanced accountability for what that company is doing when they believe that they *are* pursuing a “public benefit.” Under the current regulations the B-Corp itself, or rather its leaders, decide what the public benefit is and how it should be upheld. This self-governance is particularly relevant to an examination of the rise of the tech-AFN, the majority of which are listed as B-Corps with benefit goals of providing “good food,” improving “food access,” and supporting “local” food economies. The ultimate social benefit goals of the tech-AFN as a B-Corp are reviewed throughout this research, most notably in *Chapter Three*.

2.3.2: Ethical Consumption and Civic Engagement

Consumer participation in AFNs is often driven by ethical or political goals (DuPuis et al., 2006; Hinrichs, 2003; Johnston et al., 2009a; Papaoikonomou & Ginieis, 2017). In many ways consumer participation in the traditional AFN is viewed as a value-based act of “ethical consumption.” For example, consumers seeking fair-trade or sustainably produced foods are viewed as desiring ideological goals of “solidarity” or of “conservation” through their consumption habits (Bryant & Goodman, 2004).

“Ethical consumption” is defined broadly as the practice of “people purchasing and using products and resources according not only to the personal pleasures and values they provide, but also to ideas of what is right and good, versus wrong and bad, in a moral sense” (Starr, 2009, p. 916). Similarly, the concept of “political consumption,” often used interchangeably, is defined as consumer “behaviors that are shaped by a desire to express and support political and ethical perspectives” (Shah, McLeod,

Friedland, & Nelson, 2007, p. 217) or alternatively as “the intentional use of consumer choice over products and producers within the marketplace as a means of expressing policy preferences and achieving political objectives” (Newman & Bartels, 2011, p. 804). The implication behind both terms is that consumers have the power to affect change – social, political, ethical, environmental, etc. – through the marketplace through their consumption choices (Baumann, Engman, & Johnston, 2015). In food-related consumption specifically, the “vote with your fork” promotion of ethical consumption targets social and environmental values by marketing values-orientated product information such as organic, shade-grown, non-GMO, “fair-trade,” and other ideological focus areas.

There is much debate over the roles that ethical and political consumption habits truly play in achieving goals of social and political change. On the one hand, scholars find that neoliberal consumption norms “deplete activism” and constrain market-based approaches to civic engagement (Pottinger, 2013). Some scholars further contend that ethical consumption is motivated entirely by goals of self-protection, and are in fact contrary to any activist or political aims (Szasz, 2007). The concern here is that because consumption is an *individualized act*, activism through consumption practices takes the place of the pursuit of political action, which is seen as being a *collective act* (Baumann et al., 2015; Newman & Bartels, 2011; Willis & Schor, 2012). Thus, activism through consumption is viewed to be an “uncritical” strategy for change (Bryant & Goodman, 2004) in which consumers “‘learn’ to demand less of the state” (Baumann et al., 2015, p. 414), by practicing change solely through market actions. Along these lines, scholars argue that the opportunities for consumption choice create pathways for civic engagement through consumption practices that are available and attainable to some consumers and not to all (Goodman, Maye, & Holloway, 2010). Similarly, some scholars caution that describing certain practices of food consumption as “ethical” implies that “other ways of eating are somehow *not* ethical, moral, value driven, critical or politically charged” (Beagan, Ristovski-Slijepcevic, & Chapman, 2010, p. 753 emphasis in original), raising concerns about values and power structures within “ethical” consumption decision-making.

Opposing scholars argue, however, that consumers can *enact* citizenship through “responsible” consumption habits, behaving as “citizen-consumers” (Johnston et al., 2009a). In this oppositional perspective the rise of “ethical consumption” is viewed to be an effective channel for the pursuit of social change, one in which consumers play an active role in civil society-driven governance through consumption patterns (Renting et al., 2012). In contrast to the arguments outlined above, in this framing, scholars argue that ethical consumption *is* a form of collective action, one that is both socially organized and consciously mobilized (Barnett, Cloke, Clarke, & Malpass, 2005). Researchers in this camp have employed large consumer surveys to demonstrate that ethical consumption *is significantly positively* related to increased political engagement, arguing that consumption habits themselves result from social and collective practices, and that they build political consciousness while supporting collective action around social and political issues (Baumann et al., 2015; Willis & Schor, 2012). This research engaged with this ongoing debate, applying it specifically to the *tech-AFN* model in

order to determine the role in which *digital ethical* consumption plays in influencing collective action for increased social and civic engagement (see *Chapter Four*).

2.3.3: Commodified Food: Alternative Markets in Neoliberal Economies

It is essential to note that the alternative food movement is not a singular movement; but rather that it is derived from an array of social movements that include issues of environmental protection, sustainable agriculture, labor rights, social justice, consumer safety and public health. Due to these varied aspects, the alternative food movement may be driven more strongly by a particular focus in a specific time or place, leading to the rise and fall of different trends in consumption within varied alternative market spaces. A key controversy within alternative market spaces is the positioning of food as a commodity as compared to a food justice or food democracy framework that positions food as a basic human right (Johnston et al., 2009a).

Many existing alternative food networks are not necessarily profit-oriented or reliant on the commodification of food for financial accumulation. Standard alternative food networks often incorporate barter systems, communal participation, and self-provisioning practices, practicing trade within alternative economic spaces (Carlisle, 2015; Jarosz, 2008). The advance of the venture-capitalist-backed tech startup industry into local and “alternative” food markets, however, marks a core foundational difference in terms of the positioning of food as a commodity. The venture-capitalist backed business model is both a proponent and a driver of the capitalist economy, at once promoting an “alternative” system while simultaneously positioning alternative economies as inferior or in opposition to the venture capitalist model (Gibson-Graham & Roelvink, 2011). Yet, scholars argue that the long-term success of alternative food markets is dependent on the efforts of AFNs to educate consumers on the importance of food *decommodification* and to promote the establishment of food as a basic human right (Johnston & Baker, 2005). This research explores the central meeting place of the alternative food networks and venture capital, in the ways in which food is framed as being both a commodity like any other, and, simultaneously, as a basic human right and as a way of life (see *Chapter Three*).

A crucial component to the venture capitalist-backed model of the tech-AFN is the notion of scaling, or geographic expansion, required by all new tech startups to demonstrate replicability for future funding. In line with this expectations, tech-AFNs often attempt to replicate across place, generally in new regions with different cultures and unique historic legacies of alternative food and technological innovation. Thus, this research employs a “new regional” approach to the tech-AFN analysis, framing regions as both a designated spatial territory as well as a bounded space within which general principals of hegemonic identity (such as identity, culture, political and economic power, etc.) may be applied (Barnes, 2011; Paasi, 2003, 2009). *Chapter Five* analyzes the place-based expansion efforts of the tech-AFN and reviews the valuable role that regions play in political mobilization and identity-building (Paasi, 2002), and in place-based identity formation (Feagan, 2007). While evidence suggests that clear geographic differences exist in local and regional cultures and in regional patterns of

identity creation and the valuation of wellbeing (Plaut, Markus, Treadway, & Fu, 2012), there is still a notable lack of attention within academic research on the “personality differences” of regions within nation-states (Connelly & Beckie, 2016). This research reviewed the differences of the three operating regions of the case study company, finding that these “personality differences” and place-based identities played a large role in the grounding of the tech-AFN case study in place, a role that future tech-AFNs must be sensitive to across any geographic expansion or replication goals.

As mentioned above, the tech-AFN provides a unique space of possibility for the establishment as a major player in opposition to the unhealthy, unsustainable and inequitable dominant industrial food system model. Yet, as a hybrid model the tech-AFN is also at great risk of “greenwashing” or non-accountability through B-Corp goals. In fact, there is a rapid rise of new tech-AFNs that are unaccompanied by any clear alternative food movement mission or consumer education goals, as was the case with the case study company examined in this research. In fact, rather than spread ideas of food as a human right, these new alternative market models tend to promote the *increased commodification* of food for goals of corporate growth and capital gain. Further, the rise of tech-AFNs also transfers producer-consumer interactions to digital space in ways that create new and different relationships, amplifying existing equity issues from AFNs and in digital space, and troubling the foundations of relational trust that have historically served as the key to success for alternative food networks. Thus, this research pulls from a variety of literature from across the field in order to understand the ways in which this new model functions, and what its long-term impacts might be.

Chapter Three: Venture Capital Meets Alternative Food Networks

Startup technology companies are based on the premise of staking out new territory in innovative and rapidly-growing market spaces. In this vein, the case study company Farmigo (discussed further in the *Introduction* and *Methods* chapters) sought to position itself as a new online grocery delivery model. In particular, the company aimed to fill the market niche of food products that were local, organic, and sustainably grown by small-scale food producers in an online retail platform. In its marketing messaging, Farmigo also focused substantially on a commitment to environmental sustainability and social and economic “food system change.” This chapter questions if and how Farmigo as an “online farmers’ market” is part of or is connected to traditional framings of Alternative Food Networks (AFNs).

Alternative Food Networks (AFNs) are defined as having short supply chains, small-scale organic and holistic production practices, alternative food purchasing venues such as food cooperatives, farmers markets, or CSAs, and a commitment to social, economic, and environmental sustainability in food production (Jarosz, 2008). AFNs are situated in a *value system* of social and environmental justice, localization, and consumer-producer relationships (Jarosz, 2008; Marsden et al., 2001; Venn et al., 2006). To date, AFNs have functioned within, but on the periphery of, the mainstream food market system. Arguably, AFNs work to *decommodify* food by incorporating social and environmental values and goals within the food market space, though they can be defined simply as an alternative market space for the trade of food as commodity within the market system (Wilson, 2013). Therefore, with the exception of the clearly “alternative” retail venue, Farmigo’s promotion of “local” food and short supply chains and its commitment to small-scale, organic, and sustainable food production practices, places it well within the traditional AFN category. However, as a for-profit technology startup company Farmigo’s goals of “alternative” food system change were secondary to the company’s overall goals of geographic expansion and ultimate market disruption through the implementation of new technology.

All AFNs operating within the mainstream economic system must by their very nature display some form of alternative-conventional hybridity in order to function (Forssell & Lankoski, 2017). I argue, however, that Farmigo’s dual role as an alternative food retail venue *and* as a technology startup positioned the company within a unique hybrid space that I refer to throughout this dissertation as a *tech-AFN* hybrid (more information on the nuances if tech-AFN hybrids are explored throughout this and the following chapters). Importantly, I posit that the primary goal of Farmigo’s market disruption was to establish a new business model of food supply through the portal of ethical food consumption. As mentioned above, Farmigo sought *primarily* to be a model for market disruption, and only secondly to promote “alternative” food system goals. This distinction in priorities is an important framing for the unpacking of Farmigo as a case study in this analysis of the alterative food and tech hybrid market

models.¹ Farmigo's approach to market disruption is directly in line with the current food-tech industry, in that these new companies are coming *to* AFNs *from* tech perspectives, and thus are repositioning AFN goals within tech startup expectations.

This chapter begins by reviewing the role of venture capital (VC) investment on entrepreneurship and the development of new tech companies. In particular, I analyze the differences between VC and tech startup culture and approaches towards market disruption through geographic expansion, or "scaling," and conceptualizations of time. I then dive deeper into the hybridity of the case study model, both from an operationalization perspective as a certified B-Corp, and from a theoretical perspective as a supposedly dual mission-driven and market-driven enterprise. Finally, I review the differences between approaches to the "technical fix" and "market disruption" across both alternative food market and tech startup cultures, noting the constrictions that arise in a hybrid model of the two. Throughout this chapter I discuss the clear tension in the way that food is positioned and understood between the alternative food world and the tech startup world, as a traditional commodity on the one hand and as a way of life and way of being in the environment on the other. Ultimately, *all* of the clashes discussed in the functionality and operationalization of the tech-AFN hybrid stem from opposing ideologies on the positionality of food within the market system.

3.1: Growth for Venture Capital

"I remember when I was in New York we had one of our board members come in, and he was sort of speaking to that relationship to venture capitalists and startups; how investors choose which startups to work with. And the remark of his that really struck me was - he said something to the effect of - venture capitalists don't go for - they don't try to hit singles, they go for homeruns. So, we're not trying to make the safest bet, but the bet that could really pay off. So, it wasn't about his bet for Farmigo to be profitable in New York. His bet was: can Farmigo be a leader in replacing supermarkets?" (CA02)

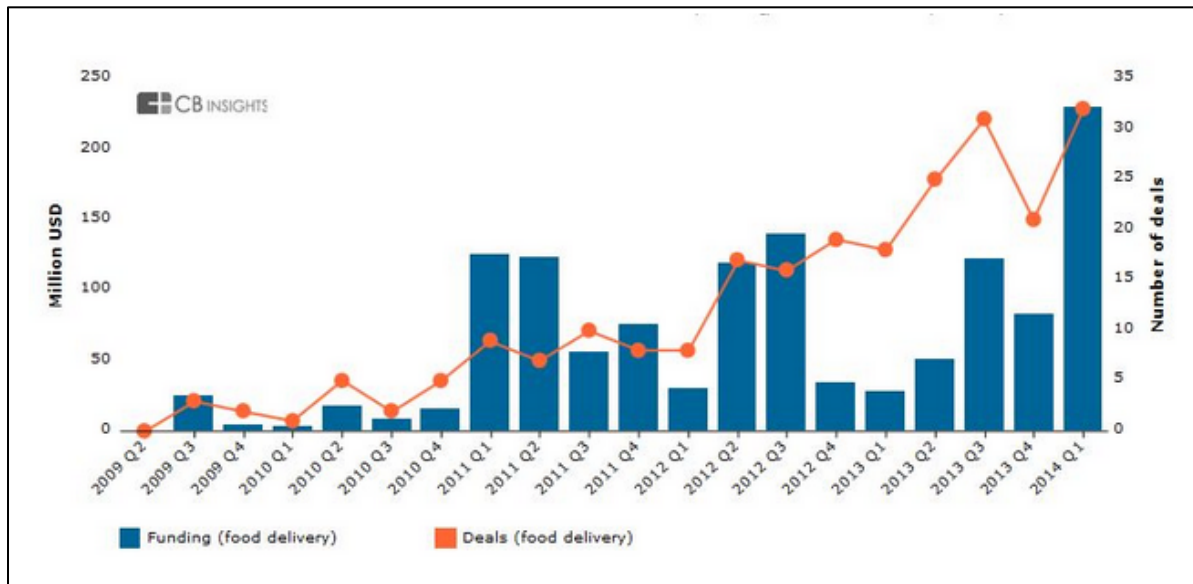
Venture capital investment currently is and historically has been an important driver of technological innovation and entrepreneurship in the United States (Kenney, 2011). Like other forms of finance, venture capital trends towards industry-specific focuses shift across place and time, though technological investment broadly has remained constant. The nature of venture capital financing is "high-risk, high-reward," with a failure estimate of over 40% of initial investments (Kenney, 2011). The ultimate goal of venture capitalist (VC) investment is success through growth and scale, and the ultimate reward for VC investors is market disruption through innovation.

Venture capital investment arrived relatively late to the food scene, beginning significant investment in the early 2000s through the rise of automated purchasing and delivery. VC investment in food delivery began gaining traction in earnest in late-

¹ Farmigo is one example of a food and tech hybrid model; more on the field of food and tech companies broadly is reviewed in the *Methodology* chapter section on *Site Selection*.

2009, reaching its peak to-date in 2014 and 2015, as shown in *Figure 3.1* below (Meijers, 2014). For an array of reasons, including pricing, marketing, and goals of market disruption, alongside any social justice and environmental intentions, a broad swath of VC investment is now centered on small-scale alternative food networks; making VC the primary driver of new small-scale food-tech startup companies (Insights, 2017).

Figure 3.1: Venture Capital Investment in Food Delivery 2009-2014 (Meijers, 2014)



This chapter section examines what happens when the venture capital investment model meets the alternative food movement, and, specifically, how VC investment in an alternative food startup integrates VC funding ideology into AFNs. AFNs have traditionally been defined *in opposition to* the dominant industrial food system model. Through this definition, AFNs are *reactionary* and created as a form of political resistance (Holloway et al., 2007). Recent scholarship has made the case that a hybrid positioning for all AFNs allows for a more accurate analysis of the alternative food market space due to dynamic movement between the alternative-and-conventional spaces of food consumption, food production practices, food jobs, and even food information (Forsell & Lankoski, 2017; Le Velly & Dufeu, 2016). Situating venture capital investment within an alternative food network, however, requires a break from the often-cited alternative-versus-industrial food binary, placing the VC-funded online-AFN not only within a hybrid alternative-industrial food market conceptualization, but also in a unique role as a new *tech-AFN hybrid*. In this new hybrid alternative, due to the format of its funding mechanisms, rather than viewing the AFN *in opposition to* the mainstream industrial food system, it instead must be viewed as *in collaboration with* the neoliberal food system model.

As scholars have noted, clarity around the definition of ‘alternative food’ is “slippery” (Holloway et al., 2007) and “ambiguous” (Wilson, 2013). Arguably it is precisely this vagueness that enabled tech-driven corporate interest to enter into alternative food

market spaces. Building on Jarosz's work on AFNs a decade ago, we know already that AFNs are "not static," but rather are dynamically emerging from situated political, social and historical "processes-in-place" (Jarosz, 2008). Acknowledging both that the definition of AFNs and alternative foods are "ambiguous," and also that AFNs are by nature dynamic and situationally emergent, allows for an examination of this seemingly contradictory venture capitalist growth model within the alternative-conventional hybrid market space. Through examples in the following sections I demonstrate that the VC-backing and VC-expectations of the tech-AFN emphasize neoliberal growth goals in a form exaggerated from traditional market measures, and one that is antithetical to traditional alternative food network goals.

The pervasive public sense from popular authors such as Michael Pollan, Frances Moore Lappé, and others is that the food system is "broken" and that personal lifestyle choices can lead to social and environmental system change (Zimmerman, 2015). Yet, public perceptions of the "broken food system" lack explicit explanations of either the inner workings of the "system" processes, or of the "broken" components; allowing for a broad public interpretation of the approaches towards a food system "fix." Following this search for the food system "fix," the tech startup's approach builds on the startup model's goal of market disruption with broad aims to "disrupt the supermarket" through technological innovation and create newly accessible producer-consumer supply chains of "alternative food." Thus, the alternative food tech startup, and by extension the venture capitalist model of growth, has both stepped into, and also is actively shaping the growth and formation of, existing alternative food producers and AFNs in substantial ways.

There are multiple deep cultural differences between the VC and AFN models. First, the return on investment in the venture capital model hinges on *scale*, the creation of a process for mass product distribution reliant on geographic expansion and growth.² In contrast, the alternative food movement is grounded in supporting a purposefully small-scale approach to food production and consumption. Further, AFNs are place-based and emphasize the cultural values of localized geographic identities. Second, VC investment operates on a rapid timescale rate of return, functioning at a pace in which the investment trends of one year can be either doubled or diminished by the next. The average lag between investment and return in the VC model is between four and six years, with companies moving between stages of growth on a timeline of one to three years (Sahlman, 1990). In contrast, AFNs are grounded in a model that gains traction by moving in purposeful opposition to speed, by being *slow*. For example, the Slow Food Movement embodies the ideals of "food that is good, clean, and fair for all," by rejecting "fast food and fast life" through the literal symbol of a snail (SlowFoodUSA, 2017).

² Note that "scaling" in a VC framing implies the successful geographic expansion of a market model to new places. This definition is very different from the ways in which "scale" is commonly understood in Geography as levels of geographic representation. Unless otherwise noted in this chapter I refer to "scale" in the VC-intended context.

VC investment is deeply tied to the history of technological innovation and growth, particularly in the United States. In many cases leading companies in the tech industry exist *only because of* VC investment, and while tech isn't the only market for VC, each are integral in the historic success of the other. In contrast, the alternative food movement has a deep-seated history advocating *against* the industrial food system's overreliance on technology. The embrace of the "technical fix" has traditionally fallen to the proponents of the industrial food system, in which technological innovation has been consistently implemented as the dominant strategy for the growth and systemic resilience of global agribusiness (Stuart, 2008). An overreliance on the "technical fix" of synthetic inputs in food production and processing have been critiqued by advocates of the alternative food movement since the "Gene" and the "Green Revolutions" (Friedmann, 2005), and in responding to the global food crises of 2007 and 2008 (Jarosz, 2009). The classic neoliberal approach to food policy tends to promote the "technical fix," arguably perpetuating a toxic food environment, in comparison to food movement goals of anti-hunger, farmworker rights, and ecological sustainability (Jarosz, 2014). Thus, in its very existence, the hybrid tech-AFN embodies a deeply rooted clash of ideologies around the value and role of technological change in the food system, and conceptualizations of food itself as commodity.

3.1.1: Seeking Disruption Through Scale

"There's a certain scale you have to reach to be profitable, and there's an opportunity for new models in the food system, but their ability to get to a scale where they can work depends on their ability to access capital." (WA03)

Starting a new business is expensive. Starting a *food* business is particularly expensive. The grocery business has to handle short shelf lives and low-profit margins on product sales. To succeed financially in the grocery business in the current market economy, companies must operate at a large scale. Modern grocery industries that are financially successful thrive by leveraging their large economies of scale. Wal-Mart is the prime example of an early adopter to the economy of scale model in the grocery industry, which it achieved by decreasing food delivery costs, diversifying products, and locating large big-box stores outside of urban centers (Ellickson & Grieco, 2013). Small-scale grocers across America could not compete with the lower prices available at Wal-Mart and shut down, and subsequently major mergers were initiated across the American grocery industry (Mamen, 2007). The consolidation of grocery firms also led to the consolidation of food distribution systems. All major grocery chains in the US today are vertically integrated, controlling their own transportation and warehouse spaces, in addition to their role as food retail outlets (Wrigley et al., 2013).

Successful market alternatives to the mainstream grocery industry do exist (as discussed in *Chapter Two: Literature Review*), operating through examples such as seasonal or year-round farmers' markets, community supported agriculture (CSA) or community supported fishery (CSF) models, and cooperative grocery markets. Yet, to date, none of these alternative food market spaces offer the level of scale needed to *truly* challenge the global industrial grocery industry. Rather, AFNs are based in a

traditional ideology that privileges a localized and small-scale approach to the production and sale of food. Yet, the introduction of venture capital as a player in the alternative-food startup through the tech-AFN necessitates a shift towards alternative food's ideological approach to scale, as market scale is the ultimate goal of venture capital investment. The goal of VC scale is that the *model* created by the tech-AFN, the tech platform and digital construction of the consumer-producer relationship, can be successfully reproduced across multiple geographic spaces. There's the catch-22 of the hybrid tech-AFN: to create an AFN that can compete with the grocery industry and attract VC investment it *must* have the opportunity to scale, and yet, scale itself is the antithesis of the AFN ideology and approach. So, what does that mean for the long-term integration of the tech industry with the alternative food market? In the Farmigo case study the emphasis on scale played out in several ways, discussed below.

The emphasis on growth and scale was pervasive for employees working in all aspects of Farmigo, from operations to logistics to customer-relations and development. Business decisions were made, not because they were necessarily the best decisions for the company in that moment, but always with attention to future corporate growth through scale. Farmigo's story - the story told to investors, producer partners, customers, and staff - was consistently a story of scale. The creation of the Seattle office and the building of Washington's food delivery network was all conducted as a showcase of scale, demonstrative for current and future investors of the *replicability* of the Farmigo model across time and place. In other words, the creation of the Seattle market region and distribution network for Farmigo was *not* because the company wanted to expand in Western Washington *per se* (the implications of which I discuss further in *Chapter Five*). This constant investor-driven pressure of scale also meant that there was a strict rigidity in regard to the adaptability of the model. On the one hand, as a small startup the company had a great deal of room for corporate creativity and operational innovation, but, on the other hand, there was intense pressure to maintain a previously-developed and standardized model in order to *prove* the theory that the model could replicate across place (VC conceptualizations of scaling).

The pressure to scale was often counter to the decision-making that might have prioritized immediate company stability and success. Implications of decision-making due to the pressures of scale on the case study staff are demonstrated below:

"Everything I did became not-scalable. That was the number one thing. I've done this long enough that I know that it's going to work. I'm not going to do something that's only going to hold up for a little bit... I knew we were going to be able to grow to whatever numbers they gave us, and I was going to need more people..." (WA08)

"I think [this issue] is a product of where we were in the investment cycle and needing to demonstrate success. And then, my sense was that there was a very large appetite for saying: once we're through the fundraising there are - we are very open to questioning how we do things. But, to go from a series B to a series

C, and not have the model figured out, or to not have any model figured out and to still be questioning it, is - that's not good." (WA03)

"Venture capital is seeking this outrageous return, and I see it, I'm seeing it play out at [the new company where I'm working now]. They opened here in January and they want to get to San Diego by the end of the year... because the money is telling them to. And they had a choice where they could take the money, or not... [and] grow in a more organic way. But this money sweetened everything and it raised expectations. If you can't - if you don't have the legs to stand on and grow, you just fall apart." (CA06)

Documenting Farmigo's struggle with scale is not a critique on the processes of this particular company, but rather is an examination of the tensions inherent in combining two seemingly oppositional strategies within one model: to scale (and how to scale), or not to scale. In fact, the story of Farmigo is mirrored by a similar geographic expansion and contraction to Good Eggs, a tech-AFN online grocery market based in San Francisco. Like Farmigo, Good Eggs offers locally and organically produced foods from "the best Bay Area foodmakers" based on a mission of "high standards, driven by passion and principle," (GoodEggs, 2017). Originally founded in 2011 in San Francisco with VC-backed investment, Good Eggs had followed VC protocol by rapidly expanding its operations to metropolitan areas around the country by 2015, including operations in Los Angeles, New York City, and New Orleans. However, as a foreshadowing of Farmigo's coming fate in June of 2016, Good Eggs closed all its operations outside of its San Francisco headquarters in August of 2015 (Ha, 2015).

Farmigo versus Good Eggs

I was working for Farmigo at the time that Good Eggs downsized, and in our company, the Good Eggs' fall was seen, for us, as a measure of our success. The messaging for Farmigo employees was that Good Eggs had approached their scaling process wrong, and that we were doing things differently. Good Eggs, the messaging went, had over-extended themselves by trying to scale too much too quickly, by opening three satellite operations outside of their headquarters in the Bay Area. We, Farmigo, were being more conservative in our expansion as we had approached scale with only one new site, the Seattle office (Farmigo's San Francisco and New York City operations had evolved simultaneously and organically, so the Seattle operations were the first official demonstration of the model's replicability and scale). Of course, by the following summer Farmigo had closed its own doors, and not only the satellite operations in San Francisco and Seattle, but also its entire food delivery operation including the headquarters in New York City. Meanwhile, there was public confirmation of a re-investment in Good Eggs focused on expansion, with new goals of replicating the Good Eggs model in major metropolitan areas across the United States (Kolodny, 2016).

The juxtaposition of the similar growth and demise of these two hybrid tech-AFN “online farmers’ market” models lends itself away from the more narrow perspective of the business decisions of a specific company’s expansion efforts, and instead towards the broader implications of attempting to make a system that is grounded in localized networks scale geographically. Traditional AFNs are positioned in opposition to scale, both idealistically and logistically. Similarly, traditional *conceptualizations* of AFNs are rooted in practical and political geographic imaginaries of an idealized and “localized” place (Harris, 2010). Yet, some scholars argue that it is only by developing the dexterity to transcend scale across place that AFNs will enable systemic food change (Born & Purcell, 2006; Wald & Hill, 2016). Yet, to survive its early stages of development the hybrid tech-AFN *must* be able to transcend scale, at once embracing and connecting to the previously existing localized food networks in place *and also* retaining the nimbleness and flexibility to translate and replicate across space.

The error in both the examples of AFN expansion described above is that place-based notions of AFN models were unknowingly integrated within the model of AFN replicability that failed to take root in a relocalized setting, and thus failed to replicate and scale (discussed further in *Chapter Five*). Yet, strong AFNs continue to thrive across the nation and the globe with shared features and commonalities. It’s logical that technological tools could be implemented to broadly support the growth of AFNs across place, thus supporting VC investment goals of scale. However, the creation and implementation of those tools must be able to recognize and respond to place-based versus scalable AFN needs, a concept counterintuitive to the “placelessness” model of modern technological innovation.

Ultimately, Farmigo’s long-term survival was dependent on how it told its story to a small select group of wealthy individuals making a calculated financial gamble and seeking a high return on their investments. Thus, the story of VC investment shaped not only Farmigo’s goals for growth, but also its mission and staff recruitment, its standardization around the operationalization of its model, its tech platform, and its approach to the existing AFNs in each area where it operated and expanded. With the growth of the technology sector’s involvement in alternative food, traditional AFNs operating near to major metropolitan areas are impacted by the growing food-tech industry, whether they choose to participate in it or not. In some circumstances, AFN producers are joining forces with tech-AFNs, and then suffering when those new markets relocate or close, as with Farmigo or Good Eggs. In other cases, pre-existing AFNs face competition with these new tech-AFN market spaces. Therefore, the tech-AFNs need to comply with the “ideal” investor story of growth and scale, whether these new market spaces ultimately take hold or not, is having and will continue to have major implications on the future of existing AFNs in these areas.

Telling the Investor's Story

Part of the tensions surrounding scale in the unfolding of Farmigo have less to do with the operationalization of a startup model, and more to do with telling of an investor's story. Scale is certainly crucial to VC investment and returns, but, like all other cultural institutions, VC investment follows trends that favor different industries and strategies in the field (Kenney, 2011). In the short time that I worked at Farmigo the emphasis for VC funding goals in the United States pivoted from *scale* to *profitability*. When I began work with the company in July 2015 the focus, both internally and nationally, was on growth and scale. Farmigo was newly launching operations in the Seattle-region (the reason that I was hired) specifically in order to demonstrate replicability for current and future investors. In fact, Seattle's location was strategic primarily in that it had a strong tech and VC investor scene, and secondarily that there existed a vibrant network of local food producers and a consumer base interested in purchasing local-seasonal and organically-produced food. When I started with Farmigo their goals were to launch operations in the Seattle-region that fall, and then to expand to Atlanta, Georgia or Houston, Texas later that spring, with plans for ongoing and continued growth. At that time there was an entire team focused on launching "New Markets," with Seattle as the pilot.

By January 2016 the company had formed a new plan, almost entirely in response to changes in VC trends; the focus now was to demonstrate profitability. Many startups, including major operators such as Uber or Instagram, did not (yet) make a profit for their investors. Thus, by early 2016 profitability became the new source of showmanship to entice and encourage VC investment. Farmigo was preparing to enter its third funding round and was positioning its story for investment. Granted, all small organizations that seek funding (both for- and non-profits), position themselves strategically to appeal to funders. However, in an industry with such tight margins and challenges to scale, pivoting from replicability to profitability harmed internal operations. The company became primarily a platform for an investor story, rather than a well-functioning operation. The reality couldn't meet the story, and ultimately both the company, and its story, died.

3.1.2: The Need for Speed: Slow Food versus Startup

"The basic concept, the thing that got me so excited about it the first time I heard about it, seems to make a ton of sense. More and more shopping is being done on the internet, not everyone has time to go to the market, or to go to the market as frequently as you need to get this stuff. I think there's a slow, slow, trend to supporting local. I think that more and more people are becoming into it, and that's cool. But I think that it's slow. And startups are not slow. And Venture Capital is not slow. So, maybe there's a mal-alignment there." (CA09)

In documenting the spaces of tension and connection in the tech-AFN it is essential to examine the implications of different perceptions of time across the tech and AFN

worlds. Venture capital functions in a rapid timescale. The time-space compression of neoliberal globalization is exacerbated by VC's expectations of agile organizational movement, momentum of growth, and rapid return on investment. Technological innovation too, a major driver of VC growth, is often cited as promoting the acceleration of and compression in conceptualizations of time (Wajcman, 2008). In contrast, the tenants of alternative food networks are historically rooted in *opposition* to global time-space compression and to processes of rapid organizational movement and growth (Jarosz, 2008; Sage, 2003; Venn et al., 2006). Alternative food networks operate seasonally, and privilege processes such as relationship building that evolve more slowly over time.

Harvey writes that the space-time compression of globalization is intrinsically linked to the growth of capitalism (1990). In that the "spread of capitalist social relations has often entailed a fierce battle to socialize different peoples into the common net of time discipline implicit in industrial organization," (Harvey, 1990, p. 419). In line with this theory, much of the "slowness" of the alternative food movement is motivated *intentionally* as an active resistance to the global neoliberal food market. For example, the Slow Food Movement, positioned in opposition to 'fast food,' uses a purposeful shift in the temporal approach to food as the basis of its 'good food' resistance (Parkins, 2004). Similarly, the Local Food Movement, rising in popularity the 1990s in opposition to the global 'industrial' food model, privileges food that is 'fresh' and seasonally produced (Allen, 2010). While temporal practices may not be immediately apparent as an act of food resistance, temporal factors such as seasonal eating, sustainable growing practices, shorter supply chains, and privileging 'fresh' foods function in opposition to the neoliberal industrial food model, which is highly reliant upon processed, packaged and long-lasting food. Traditional AFNs are also situated within frameworks of 'relational connectedness,' built through strong community ties and a foundation of trust (Jarosz, 2008; Thorsøe & Kjeldsen, 2015; Venn et al., 2006), which take time to create. Thus, the processes integral to the formation of AFNs require and support a *decompression* of time from the neoliberal model.

As a hybrid tech-AFN Farmigo had to navigate both the rapid notions of timescale inherent to the VC and tech startup culture, while simultaneously embodying the slower time-scale essential to the formation and structure of AFNs. The actors within the Farmigo case study presented a range of experiences in navigating these different approaches towards time. Many noted that the company timeframe operated on a VC schedule and expressed accompanying concerns about missed opportunities for community connections or mission-goals due to constraints in growth over time.

For some employees, the fast-paced startup model of rapid growth allowed for a freedom and flexibility in the workplace that was both enjoyable and exciting to be a part of. Most of the employees that expressed pleasure in the pace of Farmigo were drawn to the company because of its position as a tech startup and the expectation that the company culture and growth speed would allow for creativity and upward career mobility. These examples are demonstrated in the following quotes:

"I really liked the fast pace that everything moved, I really liked the ability for people to be self-starters, and kind of create your own path within the company. There was a lot of flexibility." (CA10)

"I did value and enjoy the certain amount of freedom to just go and try things, and the recognition that they didn't really know what they were doing. And it's true. And I think it's a really bold thing to say. And I think that it's important [to call out that] - 'Hey, we've never done this before, and neither has anyone else. So if you have an idea - try it, test it. Try to gather data on it.' And I really enjoyed that, even though we weren't fully given the space or the tools to really do that." (WA05)

For other employees, however, the rapid pace of the VC-backed tech company startup model was connected to definite unhappiness in the workplace. Those employees expressed concerns about the misuse of data in guiding organization decision-making because of VC constraints to both understand the replicate the model, and to grow, very quickly. For some employees, this was reason enough to leave the company.

Most Farmigo staff did not explicitly address tensions between the different timescales of the tech and food worlds; however, these tensions were alluded to in multiple ways. Tensions around time were raised particularly around discussions of Farmigo's ultimate closure, or "failure" to survive. As noted previously, this research project does not intend to identify the reasons for Farmigo's closure, nor does it desire to do so. However, the spaces that employees working within the case study identified as spaces of failure, and how they made sense of the discrepancies that they saw, are notable. In many ways, employee perceptions of the ultimate company failure related directly to clashing notions of time. On the one hand, many felt that decision-making was overly rushed in order to meet high expectations of VC growth. On the other hand, many felt that factors of traditional AFNs that take time to build, such as relationships and trust, were overlooked due to expectations of rapid growth.

The implication of employee ties to temporal mismatches within the company as exemplary of the ultimate failure of the organization demonstrates the importance of congruity in the approach to time. Employees who identified missed opportunities for community engagement, either for the best practices of lessons learned, place-based cultural competency, or simply basic public relations, all came from a background in the 'food world.' It's unsurprising that these employees pointed towards a lack of relationship-building as a mark of failure, because, for them, an Alternative Food Network cannot exist without obtaining and maintaining cultural cohesion, community support and trust.

*CA01: I knew all of our farmers [before Farmigo], which is kind of strange... [Farmigo] being a competitor and not being an ally for those people is completely real. I mean, when I went to work for Farmigo, a lot of my network was like - 'Don't do that! What are you doing?' - There was lots of negative feedback.
AM: Why?*

CA01: Well, because Farmigo's a startup, and they never thought they would make it. They were an outside company to Seattle and they were struggling in Seattle - PCC, Amazon, just all of those factors were real – and I think they were real factors for why Farmigo failed for sure.

"To know a local food economy, you have to be able to connect with the people who are a part of it. It's kind of like the savior mentality, that you can just come in to a place, and like, you know what's best for them, right? A there's a little bit of the element that's like, we're so sexy and we have such a beautiful marketplace, that people are going to jump at the opportunity. So there's a level of that going on. And hearing the struggles of the food hubs, we would have learned a lot, just by talking to them. Like, why is hard for you to be working with these small farms, and what have you guys learned in the process?" (WA02)

Harvey notes that while, “new concepts of space and time have been imposed by main force through conquest, imperial expansion or neocolonial domination,” maintaining oppositional and alternative conceptualizations of time have *historically been acts of political resistance* (Harvey, 1990: 419). If, as Harvey notes, a conceptualization of time is indeed a ‘political decision’ (1990), it is important to question how the hybrid tech-AFN *chooses* its approaches to time in its operations. Does a rapidly moving VC-model timescale automatically cancel the resistance goals of the AFN approach to time? Or, does the tech hybrid model supply an opportunity to shift the political implications of time? If so, can the rapid response of fast-paced time support the growth of the AFN without diluting the movement goals? Clearly, the choice of approach towards time pertains not only to the potential survival of the organization, but, further, to the political alignment of its mission and goals. Thus, it’s important to note how this case study company aligned itself in its approach to time and ask: Can a VC-backed startup *not* follow a neoliberal approach to growth over time? Or, alternatively, can an AFN *not* follow a slower resistance-approach to time? Finally, how might an *awareness* of political implications of the structures of time have the potential to shift the approach of a hybrid tech-AFN model? Arguably, the key here is that the tech-AFN in this case study took its cues about time approach (and the rapidity of decision-making and growth) from the VC-model, without an awareness of the politics or processes involved in creating traditional AFNs, nor of their approaches to time including seasonality and relationship building.

3.2: The Double-Bottom Line: For-Profit and Mission-Driven

WA07: People in this company were not involved in the food movement...

AM: So what does that mean?

WA07: It means that people are trying to profit off of small farmers, because it is becoming more mainstream. And that's a big part of why I wanted to leave.

Farmigo, like most of the “ethical eating” food delivery startups, situated itself as a company that was both for-profit and mission-driven (see *Figure 3.2* below). This corporate placement is simultaneously a legal one; Farmigo is a certified Benefits-

Corporation (or B-Corp), as well as an ideological one. This chapter section reviews the internal tensions between goals of profit and goals of mission for sustainable-food-system change within the company, legally, logistically and morally. Alongside tensions of for-profit market goals and alternative food mission goals, tension existed too within the mission-making process and comprehension, from the organizational leadership down. One way in which this “mission creep” manifested was through a transition of food products outside of local production.

Figure 3.2: Farmigo Corporate Website – About Us (accessed 06.22.16)

We believe the best food is sustainably made

Our food is made with whole, clean ingredients, our produce is non-GMO and grown sustainably, and our livestock, poultry, and fish are raised or caught humanely and conscientiously. All of our partners are completely transparent about their operating practices.

We're on a mission to create a food system that's better for everyone, from farmers to eaters

We believe that many of us are ready for an alternative way to shop, cook, and break bread with our families and friends. We want to bring joy to those who savor their food and care about where it comes from, who made it, and how it got to their plate.

Ready to start?

Shop your local market:

New York New Jersey Northern California Seattle-Tacoma

Certified B Corporation Farmigo is proud to be a certified Benefit Corporation (or B corporation for short), a new kind of company that uses the power of business to solve social and environmental problems. [Learn more](#)

3.2.1: Being a B-Corp

"I made that question once to [the CEO], about having a VP of Mission ... and him basically saying, 'Well, that has to be me.' And it's like, well, you're not doing it. And you are one human. You can't possibly be doing all of these things at once and doing it well, it's impossible." (WA04)

In addition to being a hybrid within the tech and food space, Farmigo is also a hybrid of another kind; it is also a formal legal hybrid. Farmigo is an example of an emerging model of a mission-driven and for-profit company certified to hold a double-bottom

line, a B-Corp. The Benefit Corporation, or B-Corp, is a relatively new corporate model legally positioned between for-profit and non-profit status. The legal categorization of the B-Corp was first formed in Maryland in 2010 and has gained rapid popularity in the United States in the last several years (White III, 2014). Like a non-profit, a B-Corp is designed to serve a mission of social good. Yet, unlike a non-profit organization, a B-Corp can, and in fact is expected to be, profit generating. Thus, the B-Corp is expected to hold the “double-bottom line” of both economic growth and social responsibility. Though there is a certification process for B-Corp legitimacy, legal scholars question the degree to which a “double-bottom line” leads a company to be beholden to no bottom line at all. To qualify as a certified B-Corporation a company must provide a broadly defined “general public benefit,” though the requirements for demonstrating “social purpose” appear currently to have little to no barriers of entry (Ho, 2014; White III, 2014). Due to the relatively recent emergence of the B-Corp model, there is little scholarship available on implications outside of the legal realm, though this is clearly a site for valuable future research.

Formed through trends of social entrepreneurship and corporate social responsibility, the B-Corp model is rooted in values of environmental sustainability as social benefit (Stubbs, 2016). The environmental roots of the B-Corp model impacts the processes of the emergence of the B-Corp in the “socially conscious” tech-food scene. For many Farmigo employees, the B-Corp certification was more about completing intentions of sustainability in a bureaucracy of proof, rather than employment in a broad systems-level approach to public benefit. In particular, employees pointed to concerns regarding labor and compensation for the part-time warehouse staff who were responsible for sorting through products and packaging shopping bags on delivery days. In this juxtaposition we see an emphasis on promoting sustainability practices such as low energy use, without promoting practices that might harm profits, such as part-time employee compensation and benefits.

"So, I feel like the hypocrisy factor was mostly about all the change. Like, here we are we're this B-Corp and we're doing all these great things for the world. There were all these things they were doing that were not so great, first of all from a labor perspective.... I mean, part of being a B-Corp is treating your employees well, and our office staff was treated ok, but our warehouse staff was definitely not." (CA05)

"I think B-corps are bullshit. I think that like, it's awesome to be called a B-Corp, but what does it really mean to be one? Being a B-Corp to me was really about figuring out which one of our appliances were energy star efficient and sending a list to [New York so that they] could submit an application. It was very bureaucratic." (WA09)

"I mean, I think [being a B-Corp] is cool. And when I see it on company sites, or logos, or whatever... I am excited by it. I don't think that Farmigo fully lived up to our B-Corp status. I actually helped [to] put together some kind of proof about our packaging for the B-Corp certification, so I just - Knowing kind of what they

required and what we gave them, it's like - it's not that we lied. I think we were definitely honest about paying a little bit more for more expensive, compostable materials, and blah, blah, blah. But I think that, overall, it - for me it ties into the kind of lack of mission-driven business decisions, and I would have wanted to see more mission-driven business decisions to kind of live up to - in my head, why the B-Corp should be." (NY07)

For many Farmigo employees, the B-Corp certification was primarily a recruitment and retention tool. Working at a B-Corp company made staff “feel good” about their roles and career choices. For many it helped to connect their jobs and roles to their values and beliefs. Yet, when pressed on the implications of Farmigo’s corporate practices and decisions made due to *being* a B-Corp, most of those interviewees who claimed that they were initially attracted to the B-Corp model struggled to state the value of the B-Corp certification beyond recruitment.

"[Being a B-Corp] mattered to me. It was a really nice talking point, not just to members, but to people who were just like, what's Farmigo? And I would explain, and it was a really nice thing to add.... It wasn't like we were the only food organization - there are a lot of food organizations that are B-corps now as well. So, it didn't make us stand out in that way, from a marketing perspective. But to me and other staff members who came to this work, I think it was important. Like, so many people came, not just me personally, but a lot of people came and left school or took pay cuts, or whatever, because they believed in our mission... It was like a stamp, or an emphasis on what we were doing." (CA03)

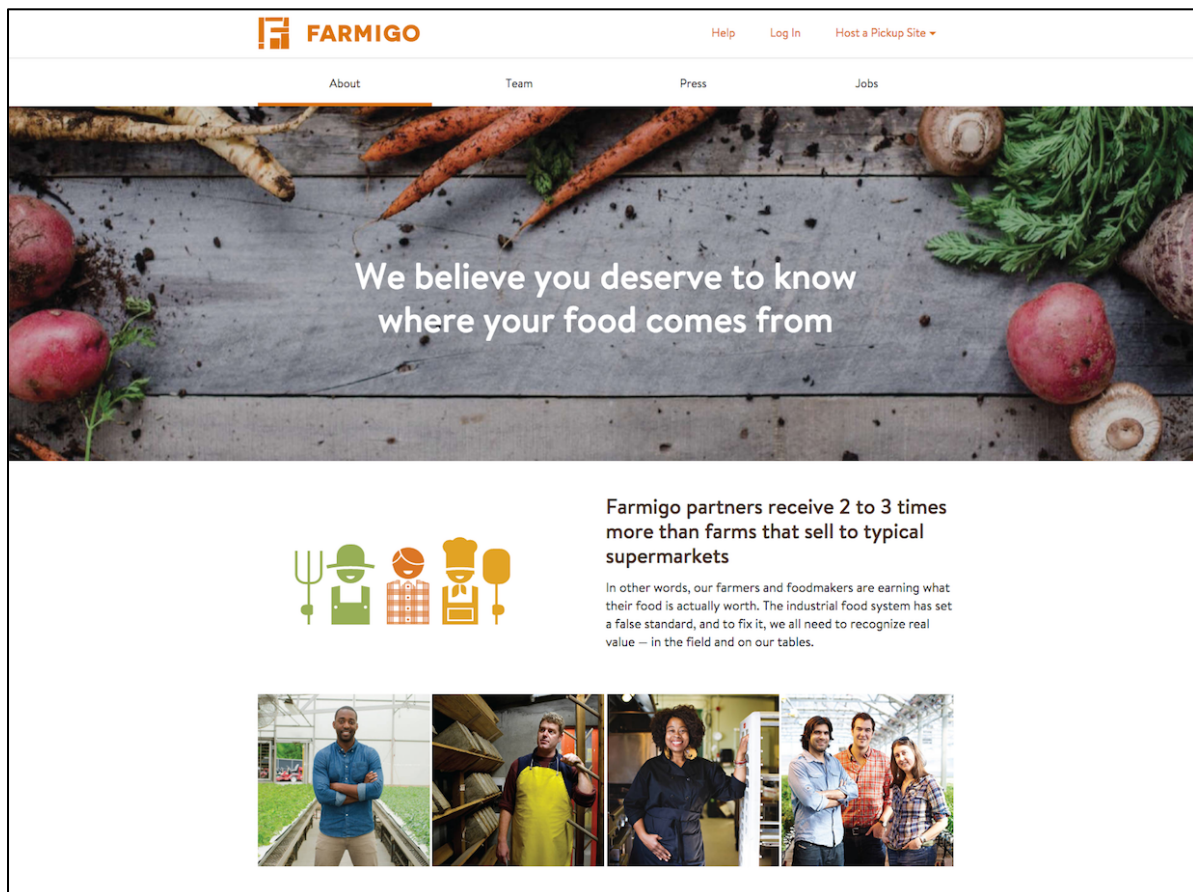
"The only reason I even thought and considered working for Farmigo is because it was a B-Corp. Not just the title, but because it was a mission-driven company.... I have zero interest working in the for-profit world at an office job whose only goal is to make a profit. But, as soon as I got into Farmigo, I was like, oh, this is totally what this is. I was just naïve." (CA05)

"I can't tell you what [being a B-Corp] meant to anything we did. I don't know. I don't even know what it really means. I have a general sense that it's about the triple bottom line and it means you care about - but did it change the way that [the company] operates? No. No. It may have made it easier to get producers on, or get consumers, but for me it wasn't a big deal." (NY05)

The observations of the B-Corp model upholding sustainability goals without attention to issues of labor, equity, and justice, mirror concerns raised by scholars about the alternative food movement as a whole, and the local food movement in particular (Cadieux & Slocum, 2015; Campbell, 2009; Mares & Alkon, 2011; Myers & Sbicca, 2015). Myers and Sbicca argue in particular that the alternative food movement “often ignores challenging race and class inequality within the agrifood system in favor of realizing environmental sustainability and supporting small farmers” (2015, p. 17). This pattern of promoting ecological priorities over justice goals in the alternative food movement is upheld in Farmigo’s dedication to small-scale farming and food

production, energy use, and packaging materials, and its failure to address inequalities in labor standards and compensation for part-time and seasonal staff. In line with alternative food movement critiques, Farmigo's goals were not oriented towards forming a socially just work space, but rather were geared towards shifting the *market* itself through its operations towards a more sustainable model, in this case promoting supply chain transparency and small-scale food production (see *Figure 3.3*).

Figure 3.3: Farmigo Corporate Website – About Us (accessed 06.22.16)



As a promotion of sustainable entrepreneurship the B-Corp model's intention is to establish a dualistic value for both economic and social or environmental goals within a single marketplace (Stubbs, 2016). In the framing of market value shift, Farmigo's role a B-Corp can be viewed in direct opposition to goals of the dominant industrial food system. And yet, the promotion of a hybrid market system that focuses solely on supporting the goals of supply-chain sustainability falls far short from the goals of food justice and food sovereignty propelling the global social movements centered around food (Mares & Alkon, 2011).

Current scholarly analyses of B-Corp implications on VC investment are centered within the legal and business fields. Viewed through this literature, the goals of developing certified Benefit Corporations are clear; they are to develop the legal infrastructure to promote a "new economy" that supports social and environmental

goals and promotes “socially responsible investing” (Marquis, Klaber, & Thomason, 2010). From a legal perspective, the goals of the B-Corp certification are to place indicators and incentives on corporate social responsibility (CSR). Though there is some ongoing debate regarding effect of the B-Corp in CSR and social change, scholars are generally in alignment that the B-Corp model is an incentive for potential investors (Hasler, 2014; Marquis et al., 2010; Stecker, 2016). Not only does investment in a B-Corp company provide investors with a “warm glow” of “charitable return,” but further, “benefit corporations provide shareholders with a simple, concrete way to measure the good that their capital is doing” (Hasler, 2014, p. 1313).

Greenwashing, the purposeful “disinformation disseminated by an organization so as to present an environmentally responsible public image” (Vos, 2009, p. 673 emphasis mine), traditionally referred to the activities of large corporations and centered on environmentally-focused messages. The term has expanded, however, to incorporate broader organizational structures and diverse social and political movements beyond environmentalism (McCaffrey & Kurland, 2015). Arguably, Greenwashing as a framing in this scenario is an incomplete critique. Rather, I argue that what we observe in this case study is a repackaging of a social movement that privileges a specific ideology around short supply chains and consumer purchasing power, as one that silences marginalized peoples who do not fit into a specific predominantly white and middle class model for food producers and consumers within this story. In other words, there is not space in the current hybrid tech-AFN model of “good food” for food justice or support for undocumented farm workers, for example, or attention to the consumer who cannot afford to *choose* to pay higher prices for higher-quality food, or who, for a myriad of reasons, does not feel welcome in that food space (discussed further in *Chapter Four*).

The B-Corp model is also used to leverage VC investors who believe that their investments are supporting the growth towards the greater “good.” However, the concern over the repackaging of the “good food” mission for corporate marketing and the investor story is less of a concern about greenwashing or cooptation, and more of a concern with the *transformation* of the mission’s movement through the legitimization of the B-Corp as certifiably “mission-driven.” In this scenario, knowledge and expertise on the “goals” of “good food” become enmeshed within the goals of the hybrid tech-AFN’s financial interest goals, and thus the knowledge pathways that form and inform the food movement become reimagined and re-routed. As knowledge becomes legitimated through the approval of experts (Demeritt, 2000; Thrift, Driver, & Livingstone, 1995; Whatmore, 2009), knowledge is also transformed as it moves, such that the site-specific meaning-making of knowledge is dynamic and shifting (Livingstone, 2010). The certification of the B-Corp status *legitimizes* the expertise of the “mission-driven” hybrid tech-AFN and the role of these hybrid companies in re-making the conceptualizations of “good food” within the alternative food movement.

The Search for 'Better'

When I joined Farmigo one of the first things that I asked to see was the producer standards that the company had set in place for sourcing our food. There were some vague words on our company website, '*Locally sourced! Organically grown!*' but I wanted the inside scoop. As a company whose market-value add appeared to be the curation and distribution of certain type of food product, I had assumed that there was a carefully laid out protocol for the type of growing and processing practices that were and were not Farmigo-approved. I was disappointed. Our internal producer standards were no different than those posted publically online; they included vague notions of sustainable growing practices and a 250-mile production radius that indicated their status as 'locally' produced. Farmigo was a young company then, and I worked on the consumer-facing side of the operation. I expressed concern to my supervisors that our producer standards would not meet customer expectations if we continued to grow, and then continued with my work.

Six months later the official 'Farmigo mission' was unveiled internally. While there was a lot of hype within the company about being mission-driven, the previous mission statement was inarticulate and ill defined. In a company call a VP noted that you could ask six Farmigo employees in a room to share the company mission, and you would receive six different answers. That was the point, I think. In the early stages the mission was so vague that it became anything you wanted it to be, I know it did for me. I had revised a meaningless mission into something that met my goals for food system change, and set about doing my job at the company accordingly. When the 'new and improved' mission was finally created, like many of my colleagues, I no longer had that luxury. The new mission was:

To create a food system that's better for everyone, from farmers to eaters.

At the end of the new mission unveiling our CEO encouraged us to reach out to him if we had any questions about the explanation of the mission. So I immediately did so. I wrote him an email and asked him if he could explain to me what he meant by 'better': *Better for who exactly? Better how? What makes it better?* He directed me our Director of Marketing and Branding. I emailed her and set up a phone meeting for the following week. Over the phone I asked her: *What did they mean by 'better'?* She didn't know. She gave me some answer about supporting farmers and the fact that food is important, with no specifics on what the processes of 'better farming' entailed or what 'good food' means. And why would she? Her job was in *branding*, in making the company appear to align with a certain vision and food ideology. As I understand it branding is the packaging of information, not the research or the background behind it. In a sense, she and our CEO were right: our food system is broken, and it needs to be "better." I'd been writing and teaching about this already for years. But, their approach confused me. How can you expect to fix something if you don't understand what the problem is? Or, more importantly, if you don't think that you need to understand the problem in order to change it? And, perhaps more alarmingly, what work was this mistaken sense of understanding doing to the company, or to the food movement broadly?

3.2.2: The 'Movement' or the 'Mission'?

"We hired people who were very mission-driven. ... And I'm sure the mission helped us in sales. I don't know the details. I'm sure it helped us get new farmers and food makers. I'm sure it helped us with all those things. But, at the end of the day we were a for-profit company. We were not a non-profit. Also, I don't understand the process of a startup making no money... We weren't financially driven. We weren't even process-oriented. And there were no controls in place. So, yeah, it's great that we have this great mission, and it gets people in the door. But, if you can't do the other things that I think are fail-safes, than what are you doing?" (CA07)

People like working for a mission. Across all of my interviews with former Farmigo staff members everyone mentioned their appreciation of both the company mission and working with peers who shared their goals and values. When I asked in interviews about strengths of the company, all answers included some sort of appreciation for working for a social change *mission*, and the high level of passion and community cohesion those employees felt in their places of work. In addition to voicing powerful appreciation of the mission, many, though not all, employees also raised concerns about the validity of the mission that they were working towards. The concerns raised spanned a wide spectrum of issues. Some interviewees expressed apprehension that the mission was an overly strong driver in company decision-making, and that the overall company production and profits suffered for the sake of the mission. In opposition, others expressed deep frustration in the mission's inability to impact the direction of the organization's operations or overarching decision-making. Whether they expressed pure appreciation, or a combination of appreciation and concern, the "mission" played a powerful role in employees' sense of their work environment and of their personal and shared employment and corporate goals.

Despite the nearly unanimous claims by employees of the importance of the mission in the company, there was little cohesion as to the foundation, the impact, or the true meaning of the "mission." In many ways the ambiguity of the mission allowed employees the freedom to create their own mission within the food space that they found themselves working in and for. For some, the mission focused on supporting the livelihoods of small-scale food producers, grounded in the understanding that small-scale food production within the dominant industrial food system is challenging. For others, the mission related more closely to nutrition and access to "fresh" and therefore "more nutritious" foods. For some employees the mis-applied term that Farmigo was "promoting food *access*" led to confusion that the company intended to support food movement anti-hunger goals (discussed further in *Chapter Four*). For others, the mission was about consumer choice, and building alternative pathways of food distribution, while for still others the mission was about goals of technological innovation for market change. Finally, for some employees the specifics of the "mission" were less important than the *feeling* that they were working towards a "good." Surprisingly, within this wide range of interpretations of the mission ran the parallel theme of deeply valuing working with others on *shared* mission goals.

Arguably, the ambiguity over the precise company mission, and the correlated feelings of collaborative and shared mission goals, speak less to the flaws within the mission design of this particular case study company, and rather towards the *ambiguity of the goals within the alternative food movement broadly*. Indeed, in both food movement scholarship and in the realm of activism, the “food movement” itself is fragmented and ambiguous. Though their goals are intrinsically linked, food sovereignty, food justice, and local food movements seek different food-system change goals, operate through differing strategies, and are propelled by different activist bases (Alkon, 2014; Levkoe, 2014; Myers & Sbicca, 2015; Starr, 2010). In addition, there is a high level of skepticism and avoidance within both the scholarly and activist fields on the value and promotion of market-driven strategies for food-system change (Mares & Alkon, 2011). Thus, it is unsurprising then that individuals working within the hybrid tech-AFN model (especially if they do not come from the academic or activist food worlds) would be unclear and even conflicting in their perception of the meaning of their ultimate “mission” and in the reality of the unification of the mission goals across the company.

Despite scholarly critique about the ultimate *value* and *impact* of market-driven solutions for the “food movement” (Mares & Alkon, 2011), online food retail is an increasingly powerful and influential player in the growth of alternative food markets and in the formation and dissemination of alternative food and food movement knowledge. Both online groceries and local food retail have had rapid increases in the grocery market share over the last decade (Brown & Washton, 2015 ; Porjes, 2015). In the case study examined here, not only did the vague meaning of “food system change” in the company mission allow for the repackaging and leveraging of product marketing for “mission-driven” cause, but further, the specific guidelines and standards were set demarcating food producers who did (and did not) qualify as “high quality” or “alternative” *enough* for the promotion and sale through corporate channels. A goal of the tech-AFN is to become the trusted curator of “appropriate” alternative food products, and this way the tech-AFN positions itself as the alternative food “knowledge expert” through its technological platform, taking upon itself the role of engaging, informing and education consumers (discussed further in *Chapter Four*).

As we know through an examination of knowledge pathways, knowledge becomes legitimated through the approval of the expert (Demeritt, 2000; Thrift et al., 1995; Whatmore, 2009). Thus, expertise is then situated as a position of authority, maintaining power and control over the packaging and production of knowledge. There is obviously a contradiction in the hybrid tech-AFN model when *expertise* is granted and legitimated through the development and implementation of the *technological* domain of the hybrid model that then becomes transferable to expertise on the *food movement* through the setting of producer standards and the promotion and explanations of terminology around food system and food product education. Arguably, due to the ambiguity of the multiple overlapping, and yet distinct, food movements, and the growing popularity of consumer engagement in food system change, the *public is actively seeking out food movement and food system expertise*. Thus, the tech-AFN’s role in consumer engagement becomes bigger than that of a marketing scheme and instead and gatekeeper for “good food” products and knowledge. If, as is

demonstrated here, the individuals responsible for the gatekeeping of product standards and information lack a unified understanding of food movement mission goals, the food movement as a whole could suffer from dilution and obscurity.

3.2.3: Beyond the "Local"

"In the end what differentiated us on the sourcing side, it was not really local. It was the transparency, of knowing exactly where your food was coming from at a different time." (WA03)

One of the examples that demonstrates Farmigo's attempts to more closely bridge the industrial grocery and AFN models was the company's transition towards the end of its operations to a "beyond the local" marketplace. Initially, all Farmigo products were sourced "locally," which, for them, meant that items were produced within a 250-mile range from a centrally located warehouse in each operating region. Notably, even within this "local" market, not all items were *grown* locally. For example, locally-roasted coffee was sold from internationally-grown beans. Similarly, in the New York marketplace Italian olive oil was sold from a local small-scale distributor based in New York. Yet, in March 2016 (three months before the company closed its doors), a "beyond the local" page was added to each online marketplace promoting the sale of items such as Florida citrus in New York and California avocados in Seattle.

The decision to move "beyond the local" was a financial one for the company in an attempt to capture greater shares of existing consumers' weekly shopping needs. The decision was based on consumer survey data demonstrating that Farmigo's customers were shopping elsewhere for their "non-local" food needs. The rollout of the "beyond the region" marketplace was framed carefully, billed as *extending* the produce season, providing items such as California strawberries in the Seattle marketplace before the Washington berries are available, but not all year long. While the company prepared itself for customer pushback, the "beyond the region" transition was greeted with little to no negative customer feedback, and, as anticipated, the average order value of individual consumer purchases increased. There was some initial pushback, however, from many of the Farmigo staff who felt that this decision was a separation from the mission-oriented company goals that they had signed on to promote (see section 3.2.2: *The Movement or the Mission?* above). Some staff expressed approval for the "beyond the region" move as an appropriate financial and business decision, while others expressed appreciation for the expansion of the items available in the marketplace (Farmigo staff received a 30% discount on their personal food orders). Still others expressed frustration and disappointment with what they saw as a continued degradation of the company's alliance with and promotion of "food movement" goals.

In many ways, the justification for Farmigo's "beyond the local" transition is supported by the claims of Born and Purcell, who argue that scale itself is not a measure of ecological or equitable food movement goals (2006). For Farmigo, the privileging of the local was inherently a messaging and a marketing scheme. The slogan "*Local tastes better!*" was plastered the website, t-shirts, banners and promotional materials. In

many ways, both the “local” food focus and the later transition to “beyond the local” at Farmigo was one of framing and of early-adopter marketing tactics aimed to appeal to a niche market in order to grow a new market model. When the existing market structure became no longer financially viable, Farmigo’s framing transitioned away from “local is better” and focused instead on other aspects of the AFN. As such, “local” was no longer the foci of what made Farmigo’s food “alternative,” and, instead, words such as “transparent,” “sustainable” and “small-scale” were used to mark the distinction of Farmigo from mainstream food markets. This transition was then ultimately justified by “mission-driven” staff members due to the “hard reality” of purely “local” and seasonal eating, as shown in the quotes below:

"I was apprehensive about bringing on too much non-local because that isn't what I signed up for, but it didn't seem that we were getting too far away from that ... I mean, I eat non-locally too. So the reality of eating 100% locally is really, really hard, unless you want to eat potatoes and squash for many months. I mean, the kale even ran out at one point, and it's tough." (WA01)

"I never interpreted our brand as purely local, to me it was hand in hand with a more sustainable food system, which I know is mostly local. I felt then - and I still feel this way - that if we're being honest with ourselves, there's - it's very hard, especially on the East Coast, especially in the North East, to be 100% - to eat 100% local.... For me, the company wasn't all about local food, local food, local food. It was about, kind of, a more sustainable food system. But also kind of keeping in mind that these are modern eaters with modern palates." (NY07)

It is important to question at what scale, if any, alternative food networks cease to no longer be classifiable as “alterative.” The positionality of the tech-AFN as aiming to create new distribution and retail pathways in the food the supply chain situate this hybrid model as *partially* embedded within the web of local producers and existing alternative food networks in place. Similarly, while product source framing and marketing may well be designed purely for organizational self-enhancement, as a supply chain for *some* small-scale and sustainably operating food producers may well serve as a buffer protecting their producers from “low marketness,” i.e. the prioritization of non-market goals over profit-oriented decision making. The tech-AFN’s role as both a product curator and as a new supply-chain trail-breaker is also then arguably governed by a *moral economy*, though the morals in this instance are driven by market disruption rather than by community connection and cohesion. Thus, in transitioning “beyond the local” in their reimagined supply chain, it is conceivable that these hybrid models may in fact be *better* serving food movement goals of ecological sustainability and equity than the purely locally-based supply models. On the other hand, at what point does the tech-AFN no longer qualify as even a hybrid alternative food network? There is little authority on where those boundary lines lie and on who is generating those decisions.

3.3: Food is Different: Clashes in Food and Tech

“Food is different. It is not just any merchandise or commodity. Food means farming, and farming means rural livelihoods, traditions and cultures, and it means preserving, or destroying, rural landscapes.” (Rosset, 2006, p. 9)

There were two primary groups of people who worked for Farmigo: those who had a background working with food and an understanding of the food system broadly, and those who did not. Those who came to the company from a food background spanned a wide array of food-systems knowledge and experience, including work in public health and academia (like myself) or in food advocacy, to careers within the restaurant industry, to managing organic supply chains or farmers’ markets, to direct food production experience through farming, ranching, baking or fishing. While there was certainly a discrepancy in terms of systems-level comprehension within the group that had a food background – the role of food is different for the rancher versus the public health advocate versus the restaurateur – there was a clear and unified understanding within the group of “food people” that working with food is somehow *different* than any other type of commodity. With the exception of employees who had a background in *both* food and technology experiences, those in the group that came to the company without a background in food tended to have career backgrounds in sectors related to technology, business, media and advertising, and political organizing.

Those without a food background also tended to be more highly represented in upper-management and leadership positions at the company, demonstrating the company’s priority hierarchy as a tech startup first, and an agent of food-system change second. The impact of these priorities on the company’s approach to its mission and the double-bottom line of being a B-Corp are discussed in the previous section. The more immediate implications of approaching a food supply chain as one might approach the production and distribution of generic widgets, however, caused some very basic challenges to the functioning of the company as a whole. Examples of the distinctions being made by employees in food as a unique or standard supply chain model are discussed below.

In one example of an interview with an upper-management employee who did not come to Farmigo with a food background, food is positioned as a commodity like any other. Demonstrated as such:

AM: And I think food is a different kind of commodity - you're shaking your head, you don't agree?

WA03: Why?

AM: Well, I want to know what you think. You don't think so? Or no?

WA03: I don't understand the question. What about it do you think is unique? ... The same way you would have a different supply chain set up for lumber or for gold, you [just] need to have you system set up for it.

In comparison, the following excerpts come from interviews with employees with a food background who were not operating at the top leadership levels:

" [The] overhead behind food is really expensive, and the logistics behind food is really hard ... Obviously there's everything related to food safety, which is a huge piece right there. I think that there are the unrealistic expectations of quality that are part of our culture. And again, have to do with lack of education. And, the standard being that you will walk into a grocery store 365 days a year and you will see lettuce that looks the same... And then of course the delivery piece as well. You always have the risk of it being damaged, not to the customer's expectations, because they want to be the ones who picked it out with their hands, because again a lot of people are really used to - and like to - having [their own groceries]. And the margins are obviously very tight. People don't want to pay very much, and so it's so limited, what you have to play with for profit." (WA04)

"I feel that the company, while they used the mission and everything as helping food and farmers and producers and all that stuff, to me it was just a commodity that they were selling. It wasn't about the actual item or the service that it was trying to do. It was making a profit selling a product. And if along the way we could help farmers and whatnot, great, but that could have been a software developer or a DVD maker. It wasn't as much as it was about getting a product out there.... [in] my conversations with [my boss] in particular, she comes from construction equipment, and runs that huge process. But construction equipment isn't dying. It isn't expiring." (WA08)

"We ran a food company, but without anyone in the leadership having food experience, at least that I know of... I think [that] meant that we were running blind as far as the work with - how to manage relationships with the food world and how handle working with food, in terms of package and storage. So, those things were figured out on the local level, but that means that different solutions were probably reached in different regions.... It's [more] the things that we didn't do, probably, that - if someone was there who had food experience, they could have made choices that directed a food company in whatever direction we wanted to go in ... Because instead we were - any decisions that came from the top down felt like, they weren't coming from a place of - here's how I've seen a food company run before, or, here's our choices and our options." (CA09)

"At the end of the day, my biggest gripe about the whole thing was the arrogance that existed above the director level. We really could have used just one or two really strong food-based people who understood what was going on. In my opinion, what we should have done... [was to] say, ok, this is what didn't work at Good Eggs, this is what we're trying to do here... Instead of just trying to figure it out on our own... All you had to do was look at the management team, no one on the management team had any food experience. No one, from what I saw, was really that passionate about food. I never heard any of them talk about it. I heard them talk about the aspects of political organizing, and how they want to apply it here.

[If you asked today] what was the problem [with Farmigo], they'd probably say something around our cost-factor was messed up, or something like that." (NY01)

Food System 101

A key differential in the understanding of how food is “different” emerged in the Farmigo staff body following an hour-long *Food System 101* presentation that I conducted in early September 2016. The presentation was part of the onboarding training for new staff in the formation of the Seattle-area launch, and included all new Washington staff members, as well members of the leadership team from across the country. The talk included a brief overview of the health, environmental and equity impacts of the global industrial food system, spiced with a few concrete examples and a grounding in historic construct, followed by a short question and answer segment. The discrepancy in the reception of my talk by the “food people” and “non-food people” present in the room was remarkable, and demonstrative of a broader gulf in the approach towards working with food across the company. I outline the examples of the two types of reactions to my talk below.

"I still say, the day you gave your presentation, I was like, oh shit, I knew none of that. I mean, everyone in the whole group was looking at each other like, oh shit, that was eye-opening. That was scary." (WA08)

"When you gave your presentation on the Food System 101, and the rest of us - everyone that you hired - were like, yup, ok, pretty much. And [the Director of the program] had no idea about the majority of this. That was, to this day, still, really frustrating to me. Because they're telling us how to talk to other people, when they don't really know how to talk about food." (WA04)

At the time I saw the expansion of the Farmigo consumption model as an opportunity for education and increased awareness of the nuances of the industrial-versus-alternative food system. It was only later that the full impact of the knowledge gulf within the company regarding they system within which we were working, and which we were purporting to “disrupt,” made itself truly clear. Despite large opportunities for career mobility and creativity within the tech startup culture, the tech-AFN institution was very hierarchically staff-structured, particularly within a VC-driven expansion model in which the formation of the model exists in the headquarters office with satellite offices functioning for the purposes of implementation of the existing model. This structure meant that knowledge transfer was unidirectional (from headquarters to satellite) without the opportunity for knowledge reception or collaboration processes. The ultimate impact being the creation of a logistics supply chain for a product positioned as a “pure” commodity without attention to the aspects of food make it distinct: connections to public and environmental health, culture, land, and hunger and food security. All aspects of which serve to set the AFN apart from the structures of the dominant, industrial food system.

The lack of acknowledgement about the differences inherent in working with food directly clash with the approach of staff that brought food experience with them to their roles. This food-clash is particularly notable in the tensions expressed around the upper-management's lack of food knowledge or experience. Issues were raised that impacted concrete supply chain logistics, such as the tight margins of the grocery industry and managing a product that is "expiring," alongside less tangible notions of food as cultural, communal, connected to the land, and separate from traditional commodity chains. In particular, food was discussed in opposition to software, as tangible, something to be touched, tasted, and physically experienced. The translation of this complex commodity to a digital marketplace without attention to the holistic realities of food led to, not only financial and operational tensions and mistakes across the country, but also emotional and cultural clashes of employees inside the institution.

3.3.1: Ideologies of the "Technical Fix"

"I think that the challenge is that when investors start to view food as software. It's not software, it's never going to behave like software. Even if you're shipping a dried good, that's totally shelf-stable, it's never going to behave like software. Because it's still physical product. If anything, it's more like hardware. But, if you're looking at fresh food, there's not a comparable side in technology." (CA08)

One of the likely causes for the clashes around food as commodity inside the tech-AFN relates to the ideology of the "technical fix." In its very existence as a hybrid tech-AFN, this model is rooted in a technical fix approach. In the modern era our cultural, social, and psychological tendencies trend toward a belief in the success of technological solutions (Scott, 2011). Yet, there is a deep-seated resistance in the alternative food movement to the technical fix, much of which is based from concerns of the outcomes of the Green and Gene Revolutions promoting the production of industrialized and genetically-modified foods. To date, debates around conceptualizations of the "technical fix" in food systems has been rooted in discourse on food production, regarding technological "interventions" in food production and primarily focused on increased yield (Jackson, Ward, & Russell, 2006; Stuart & Woroosz, 2011). Arguably, the creation of the tech-AFN model and the peaked interest of venture capital investment in food-tech distribution, signals the arrival of a new wave of the ideology of the technical fix as it relates to food. Throughout food and agricultural discourse the "technological fix" connotes a hubris that problem-solving through technological innovation will in fact lead to negative long-term outcomes.

The two greatest critiques of the ideology of the "technological fix" are their approach towards solving the "symptoms" and not the "root causes" of social issues, and their tendency to lead to subsequent problems (Scott, 2011). Clearly the first of these critiques is highly relevant in the review of the tech-AFN, and the values placed on holistic food system comprehension discussed above. The interest of the tech sector in the food movement is primarily one of market opportunity and the belief that a "solution" exists, in other words, that the answer to "fixing the broken food system" lies in technological innovation, and that those who "solve" the problem gain strategic

advantage in the growth of the market share. Outcomes of the tech-AFN related to the second critique of the “technical fix,” that of increased problems due to technical innovation and intervention, primarily regarding issues of equity and inclusion, is discussed further in the following two chapters.

The tech-AFN may well be an incomplete technical fix to the deeper concerns of the “broken” food system. Yet, it remains a potentially viable opportunity for market disruption in an otherwise relatively imperturbable global grocery market system. Without a systemic comprehension of the systems within which it is operating and seeking to shift, however, the tech-AFN will fail to succeed as a financially viable market model. Thus, the actors within a successful tech-AFN must be able to situate their role in system change as partial and interconnected, a viewpoint that is counter to the vision of total market disruption through exponential growth and scale crucial to the VC investor vision. Institutional engagement in this model is ongoing, and impacting the small-scale food producers and distributors whether they participate in the tech-AFN supply chain or not. AFN producers have already been impacted by the rapid timescale of operations and the abrupt closure of tech-AFN marketplaces across the country. As the tech-AFN model gains national traction and support, it is crucial to continue ongoing investigation on the second critique of the reliance on the “technical fix,” the concern that this “fix” will in fact lead to problems of greater concern.

3.3.2: Disruption Through Transparency

"In a perfect world we would have had the option to use distributors as gap fillers, and have very clear traceability. At the end of our time [working with distributors] we had created very clear traceability, and that was something that I was very proud of creating through their existing industrial chain... [These distributors] always had the information, but it was getting lost. And then we were requiring them to put it on - to track and to capture it... So now they have the ability. ... Eventually I got [the distributor staff] to be able to understand that, any item he sends me, he needs to be able to attach it to a farm. So he had to be able to figure out." (WA02)

When asked what people liked best about the company, or what they thought that Farmigo “did well,” the answers were inevitably one of two things (or both): the people and the food. Working for a mission-driven company allowed staff to come together around a common cause. It propelled the feeling of working towards the shared goals of building a better world. The majority of interviewees discussed the joy that they felt in their collegial communities and stated very high opinions of their colleagues’ abilities and accomplishments. The other trend of positivity around the workings of the company focused on the high level of transparency along the supply chain, and the deep value of knowing where the food they were selling came from and how it was produced.

Many researchers of AFNs have remarked on the importance of transparency in generating the trust crucial to the relationship building foundation of successful AFNs

(Thorsøe & Kjeldsen, 2015). For Thorsøe and Kjeldsen, transparency across *both* the supply chain as well as in organizational decision making processes are crucial to the demonstration of trust within the producer-consumer networks they studied in Denmark (2015). Indeed, transparency is critical to the promotion of “ethical” consumption, and though small, “local” supply chains may portend to promote transparency we know those concepts are not interchangeable (McCaffrey & Kurland, 2015). Thus, by focusing on the popularity of the sale of “local” products, tech-AFN companies like Farmigo may be giving themselves the short shrift. The true innovation of the hybrid tech-AFN may be the use of technology to promote a truly transparent food supply chain. In this way too the VC investment goals of growth and replicability of technological innovation, and the goals of traditional AFNs, fall in line.

Farmigo *did* focus in some ways on transparency, demonstrated in *Figure 3.4* below, but transparency was only one of many “new food features” that the company sold. In many ways, however, a great lasting legacy of Farmigo is the increase in supply chain transparency processes put in place with distributors. Each item sold on Farmigo’s online marketplace was traceable to a specific farm, fishery or food producer such as a baker or a jam-maker, as shown through a few examples in *Figures 3.5 – 3.7* below.

Figure 3.4: Farmigo Transparency Promotion - Website homepage (accessed 06.22.16)

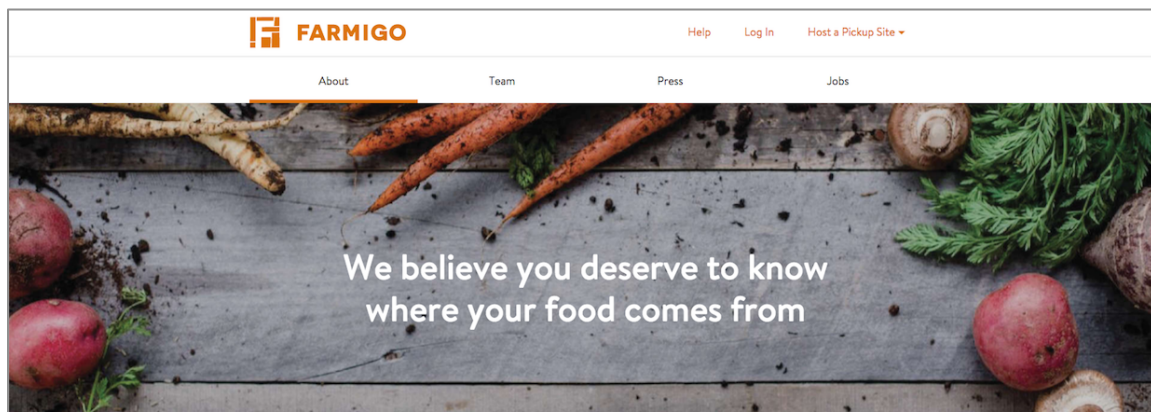


Figure 3.5: Farmigo Producer Profile – Rainier Fruit Company (accessed 06.22.16)



Rainier Fruit Company

Certified Organic

Practices: Certified organic, natural pest control, sustainable practices

Rainier Fruit Company started from humble beginnings back in 1888, where family ancestors grew apples on a small parcel of land in Selah, WA. Today, the company is a respected network of carefully-managed growers who carry the same old-world dedication to quality rootstock – they’re proud to produce some of the finest apples, pears and cherries that you’ll ever taste.

Rainier Fruit Company takes pride in delivering their fruit to their customers in the most natural way possible. They carefully select growing sites, are good stewards to the land, utilize natural pest control methods, and hand pick all of their fruit. They’ve depended on the land for their livelihood for over a century, and intend to continue doing so for many years to come.

Figure 3.6: Farmigo Producer Profile – Drifters Fish (accessed 06.22.16)



Drifters Fish

Wild Caught

Location
Cordova, AK

Producer Story
Drifters Fish is the work of Michael and Nelly Hand. Nelly grew up in Cordova, AK with her family, while Michael started fishing there over summers during college. Their philosophy is to live simply and eat well, and they do that together fishing the beautiful Copper River and Prince William Sound on their boat, the Pelican. When they're not fishing, they live on Guemes Island in the Puget Sound, Washington. They're full of pride for the wild salmon they bring to our tables, fished sustainably using gillnetting from the cold, pristine waters. Over the course of the season, they catch each of the five species of Pacific Salmon!

Figure 3.7: Farmigo Producer Profile – Steibrs Farms (accessed 06.22.16)



Stiebrs Farms

Practices: Certified humane, hormone free, antibiotic free, vegetarian feed, cage free, family owned. Jan and Zelma Stiebrs immigrated to the United States from Latvia in 1949. Their first jobs were on a farm in the Tumwater Valley, and they dreamed of having their own business while they worked picking beans and strawberries. A few short years later, they had 100 hens and started selling eggs door-to-door to neighbors and friends. The call for eggs spread to Tacoma, and it wasn't long before they had enough business to keep the family going. Today the family business employs about 70 people, and is owned and operated by their son Jon his wife Dianna Stiebrs, along with their children. Employees gather eggs by hand and care for the animals, and the farm delivers their fresh, delicious eggs to Northern, Western, Southern Washington and Northern Oregon. All of Stiebrs Natural Cage Free and Organic Eggs are produced right on the family farm, and typically make it from hen house to our customers in as little as 3 days. The Stiebr family takes great pride in maintaining the health and happiness of their hens; they eat an all vegetarian diet, and are never fed any hormones, antibiotics, harmful drugs, or animal by-products.

Across all three of Farmigo's operating regions, each producer had a profile listed on the website (or app) that shared their story as well as production practices, and often included a photograph, not only of the producers but of their extended families, children, produce, and livestock as well (when applicable). Some producers, such as *Stiebrs Farms* shown in *Figure 3.7* above, sold their products across the region in existing cooperative or mainstream grocery stores such as *Whole Foods*. Others were independent producers selling primarily at their own booths at existing farmers' markets. I highlight the producer profiles here to point to a degree of transparency in the food supply chain that is arguably unparalleled elsewhere, including in traditional AFN venues. While at the farmers' market, for example, the consumer may meet the individual who grew or made the food that they are buying, it is also likely that they are merely meeting the person hired to sell product at the market booth that day. Similarly, the consumer may or may not engage with the producer to the degree in which they will gain access to information regarding either the food production practices, or the producer's story. In the Farmigo model, each food item for sale is linked to a producer whose history, motivations, and production practices are stated

online. While Famigo did rely on larger-scale distributors to meet their customer needs (particularly in the Seattle-Tacoma area), those distributors were required by Farmigo's standards to trace all items sold to their original producer, creating lasting logistics pathways of transparency in place long after Farmigo was gone.

Part of the concern of the global industrial food system pertains to issues over food safety, much of which connects directly to a purposeful lack of transparency along the food supply chain. While there is plenty to critique about the bucolic ideal of the producers' lives presented in the Farmigo producer profiles (see *Chapter Four*), the degree of supply chain transparency demonstrated by the tech-AFN is unparalleled in any other aggregate food marketplaces. There are major implications in providing this high degree of transparency, including benefits to consumer education and awareness around the production of food, to wide scale implications for improved public health and food safety. There are also implications for small-scale food producers. When an informational email went out about a shorted or otherwise negatively impacted item due to an unexpected issue with a farm or food production system (hail damage on an orchard of peaches, for example), consumers tended to be overwhelmingly understanding and supportive of the producers, despite not receiving the food order that they had previously paid for and expected to receive.

I argue that in many ways food system transparency may be the true meeting place of collaboration between the goals of VC investment of growth and scale and the foundational core of the AFN. Market disruption through technological innovation that promotes active consumer-traceable knowledge pathways of *transparency* could potentially shake existing industrial food supply chains. Notably, systems of transparency are translatable across place and timescale. Similarly, while increased transparency may be facilitated by technological innovation, transparency is removed from the ideology of the "technical fix" that is oppositional to many AFNs and instead promotes a core tenet and value of the AFN model. Importantly, transparency must be both internal and external, modeled not only in the stated mission, but also in the decision-making processes and the communication of knowledge both from within, and also emanating out from, the hybrid tech-AFN.

3.4: Conclusions: The Hybridity of the Tech-AFN

"Part of all these companies who say the food system is broken and we're trying to fix it, yeah it's broken, but we're trying to fix the wrong thing. Or we're fixing the root, when actually the whole foundation is cracked. I mean, the whole house is going to fall down... For me that's really how a company solves the crux of the online farmers' market, is having a real understanding of both the food system and the technology. Because I think that if you're leaning really heavily one way or the other, that there are things that you miss." (CA07)

In the United States today we are experiencing two cultural shifts in the distribution and retail of food. One is the growth of online food retail, including exponential increases in the purchases of prepared foods, packaged meal kits, and online groceries.

Estimates vary, but predictions forecast that by 2025 one-fifth of all grocery sales in the United States will occur digitally, providing a total revenue of over \$100 billion (Insights, 2017). The online grocery industry is young, growing quickly, and experiencing rapid technological innovation and venture capital investment. The second cultural shift is the growth of “local” food retail, demonstrated through an increase in the quantity of alternative food retail venues such as farmers’ markets, new partnerships such as farm-to-institution collaboration, and the increase of regional food hubs for local food distribution across the nation. While local food continues to gain broad popularity among consumers (Porjes, 2015), conceptualizations of “local” are diverse and contentious. Further, food that is grown and distributed within a “local” mileage radius, does not guarantee sustainable or ethical food production practices (Born & Purcell, 2006; Jarosz, 2008; McCaffrey & Kurland, 2015). Building on the convergence of these two cultural shifts in food procurement, online local food distribution technology startups have grown around major metropolitan areas across the nation in the last several years, the majority of which are funded through venture capital investment.

In this chapter I argue that these new distribution models represent a new hybrid alternative food network: the *tech-AFN*. The tech-AFN shares many of the goals and processes intrinsic to traditional AFNs including a commitment to localized and small-scale sustainable food production and economic and environmentally sustainable food system goals (Jarosz, 2008; Venn et al., 2006). However, the tech-AFN is ultimately not grounded in the goals of the alternative food movement that led to the rise of traditional AFNs, but rather in a technology-oriented and venture-capitalist backed ideology around market disruption through growth and the “technological fix.”

This chapter explores some of the tensions existing within an ideologically conflicting hybrid space, including different approaches to time in decision-making and community building, as well as a differing commitment to place-based networks and existing systems. Trust, community, and simple supply chains are foundational to the local food movement and to the creation of AFNs. Similarly, ethical and environmentally sustainable practices are critical to the alternative food movement and to the promotion of food justice goals. As stated previously, as mission-oriented for-profits, tech-AFNs must align themselves with food movement goals, or they are likely to face deep internal cultural struggles between the leadership and the staff, and a failure to integrate with existing AFNs *in place* as they attempt to grow. Ultimately, the largest difference, and biggest identity challenge that the tech-AFN will have to determine, is how it situates food. If food continues to be viewed as a commodity like any other, the tech-AFN is unlikely to actualize the goals that led to the creation of traditional AFN models in the first place.

Technological innovation, and the development of hybrid market spaces, is an exciting potential opportunity to disrupt our industrial food system, but the formation of this hybrid model must occur carefully and intentionally, with awareness of the processes and values inherent in the different systems that are connecting. Arguably, the case study company’s failure to thrive stems from its failure to identify and intentionally

merge oppositional cultures, ideologies and goals within a hybrid model. Relationship building in place is foundational to the success of any AFN, both hybrid and traditional models. The tech-AFNs current positionality as the *curator* rather than *facilitator* of producer-consumer relationships in place may lead to its downfall. Similarly the VC investment requirement of “placeless” replicability may inhibit the ultimate success of the model’s growth. In other words, VCs requirement that the model be identically implemented across place may well be the downfall of VCs own growth expectations for the model (see *Chapter Five*). Yet, the digital market place provides an opportunity for increased knowledge pathways for consumer access to *transparency* in food supply chains that is currently unavailable in the industrial food model. If technology is used to enhance the success of traditional AFN goals, primarily goals of *transparency*, the traditional AFN model may be improved. Yet, due to current VC expectations of growth and scale, this success is unlikely to be achieved through venture capital investment means.

Chapter Four: Consumers and the Tech-AFN

"We were telling people don't go to the grocery store – well, not don't, but, here's a substitution for that. But, you're not going to see the produce. You're not going to touch it, or smell it, or see if it's right, but trust us to do it for you. And we didn't always deliver on that." (CA03)

Thus far this dissertation has focused on describing and analyzing the tech-AFN as an emerging hybrid phenomena, examining the drastic rise of online food retail and the growth of new alternative food distributions companies. This chapter expands the institutional analysis by investigating the impacts of the new tech-AFN market spaces on consumers, specifically on consumers transitioning from traditional AFN markets to consumption within the tech-AFN model. Research on online food consumption demonstrates two core differences in consumption habits between physical versus online markets, differences due to sensory deprivation in online purchasing and differences in consumer knowledge platforms. I argue that, due to the qualities that promote traditional AFN consumption habits, both of these differences in consumer patterns between physical and online purchasing are enhanced in the tech-AFN.

For most traditional alternative food consumers, their participation in the AFN is linked to preferences around food “taste, quality, human interaction, and the pleasure of consumption,” (Aucoin & Fry, 2015, p. 63). Studies on local food consumption demonstrate consumer preferences on aspects spanning food freshness, taste, quality, and health, as well as *ideological* values of supporting local economies and gaining increased product knowledge on the food’s origin and production practices (Papaoikonomou & Ginieis, 2017). Participation in the traditional AFN is also often recognized as a politicized act, in which consumers seeking fair-trade or sustainably produced foods, for example, are viewed as either “solidarity-seeking” or “conservation-seeking” through their consumption habits (Bryant & Goodman, 2004).

The first major distinction between food consumption at a brick-and-mortar versus online marketplace is that online food consumers can’t see, touch or taste their food before purchasing it. Sensory deprivation of online food retail has been the biggest barrier for widespread consumer adoption of online food purchasing, and is blamed for the failure of early online food market models (Lucky, 2008). For AFN consumers in particular, a primary driver for consumption is the enhanced flavor and taste of foods produced through alternative production practices (Hayes-Conroy & Hayes-Conroy, 2011; Joosse & Hracs, 2015; Papaoikonomou & Ginieis, 2017). Thus, for the tech-AFN, there is arguably an even greater barrier for consumer participation and model adoption. To compensate, tech-AFN marketing tactics tend to focus extensively on the flavor and taste of their food products (see case study advertisement examples in *Figures 4.1* and *4.2* below). Though all food retailers market taste and flavor in their products, unlike the brick-and-mortar market the online market model must sell the *idea* of fresh and flavorful food without the aid of the visual, tactile, and olfactory sense of the product. Further, online food consumers experience a time lag between their food purchase and receipt that differs from traditional grocery purchasing; as online

consumers do not complete their purchase with an immediately edible product. Thus, in many ways the digital market is selling the *promise* of the product and therefore it must promote this promise more strongly than physical grocery retailers do.

Figures 4.1- 4.2: Farmigo Advertises Taste (accessed June 21, 2016)



The second distinction of the tech-AFN for consumers relates to knowledge pathways around food production and distribution practices. As an online food consumer, the customer is purchasing the *concept* of a food item displayed through images and information in the online marketplace, in comparison to the traditional grocery shopper who is purchasing physical food products. Thus, in buying the concept of a food product in digital space consumers are more likely to incorporate data about the

product in their purchasing habits than when they are influenced by sensory factors such as smell, taste, touch, etc. Through the barrier of the digital screen, and without the immediate gratification of eating one's purchase directly upon paying for it, the online food consumer appears to be more deeply data driven, purchasing foods based on factors such as nutritional value and price, rather than sensory attributes such as visual cues (Degeratu, Rangaswamy, & Wu, 2000). Traditional AFN consumers, already seeking information on alternative production practices in their food products (Bryant & Goodman, 2004; Goodman et al., 2010; Lehner & Halliday, 2014), are therefore more likely to note and respond to data on food production related to values-based food consumption goals when entering the tech-AFN market.

This chapter responds to calls to “put consumers back into [the] research” (Eden, Bear, & Walker, 2008, p. 1055), by investigating the role of the consumer within the tech-AFN, using the Farmigo model as a case study for observation and analysis. I begin the first section by reviewing the current literature on the theoretical debate about the relationship between “ethical consumption” and “civic engagement,” and discuss the unique role of the tech-AFN in the ethical consumption practices with civic engagement and activism. I then analyze the case study company’s unique approach to leveraging the “sharing economy” by integrating political organizing tactics into their marketing strategy and discussing the impacts and implications of this model and, in particular, impacts on gender roles. Finally, I describe the in-depth consumption patterns of one small subset of case study consumers, the staff themselves, delving into specific ideologies around ethical eating and consumption habits.

In the subsequent section I review the intersections of exclusion in the tech-AFN through the cross-section of the “local trap” and the “digital divide.” First, I examine the spatial barriers to marketplace entry created by the online marketplace’s entry portal of a map, in which customers are welcome to make their online purchases only after they’ve chosen a pickup “community” near to where they physically work or live. Second, I dissect the ways in which language around “food access” was used both internally within the company and also externally for marketing purposes, unpacking the ways in which employee understandings of “access” demonstrate classed understandings of the food movements goals and purpose. Finally, I review the gendered roles of the volunteer positions through which the case study company conducted outreach and growth, connecting the gendered roles in traditional AFNs to those in the tech-AFN model.

The final section of this chapter focuses on staff and consumer perceptions of alternative food producers within the tech-AFN, examining the ways in which traditional AFN producers are both supported and also leveraged for the promotion of tech-AFN growth. This section includes an analysis on perceptions of the “good” alternative food producer, and implications of digital marketing tactics on producer-consumer relationship building, and on the development of trust. I then discuss the ways in which the tech-AFN aggregates producer knowledge within an “expert” knowledge platform, and examine some of the processes around the formation of these knowledge pathways. Ultimately, this chapter seeks to examine the tech-AFN from the

inside-out, reviewing the implications of tech-AFN marketing strategies on consumer purchasing patterns, civic engagement, ethical and equity concerns, and the consumer perceptions of, and relationships to, regional alternative producers.

4.1: "Ethical Eating" and "Civic Engagement"

"The passion behind all these Organizers³ who really felt that they were contributing, that was the best part about working at this job. Because these were women who spent their lives on Facebook talking about the terribleness of GMOs, and Organics. And this was a real opportunity to get involved with this and make a difference - beyond just posting about it." (WA01)

"Ethical consumption" is defined broadly as the practice of "people purchasing and using products and resources according not only to the personal pleasures and values they provide, but also to ideas of what is right and good, versus wrong and bad, in a moral sense," (Starr, 2009, p. 916). Similarly, the concept of "political consumption," often used interchangeably, is defined as consumer "behaviors that are shaped by a desire to express and support political and ethical perspectives" (Shah et al., 2007, p. 217) or as "the intentional use of consumer choice over products and producers within the marketplace as a means of expressing policy preferences and achieving political objectives," (Newman & Bartels, 2011, p. 804). The implication behind both terms is that consumers have the power to affect change – social, political, ethical, environmental, etc. – through the marketplace via their consumption choices (Baumann et al., 2015). In food-related consumption specifically, the "vote with your fork" promotion of ethical consumption targets social and environmental values by marketing values-orientated product information such as organic, shade-grown, non-GMO, "fair-trade" and other ideological focus areas. Viewed at the turn of the century as a form of "new activism," (Bryant & Goodman, 2004), there is now much debate over the roles that ethical and political consumption truly play in achieving goals of social and political change.

Consumer participation in alternative food networks (AFNs) is often driven by ethical or political consumer goals (DuPuis et al., 2006; Hinrichs, 2003; Johnston et al., 2009; Papaoikonomou & Ginieis, 2017). Traditional AFNs often distinguish themselves from the industrial food model by supplying enhanced information and transparency to consumers on the processes of food production and distribution, and most traditional ANFs use this increased avenue of information to promote consumption as an activist action (Aucoin & Fry, 2015; Pottinger, 2013).

Some scholars argue that consumers' increased access to information and education in AFN markets leads to more civic participation than participation in industrial food models does. For example, the figures below from Renting, Schermer, et. al highlight the different ways that consumers participating in industrial versus alternative food

³ Farmigo's title for the volunteer hosts of the community pickup sites who were in charge of "organizing" group orders and growing the customer base.

systems are positioned as actors in both the market and the state (2012). In the industrial food model, the market and the state are shown to be acting *on* the food consumer, who plays a passive role in the food system. In contrast, in the alternative food model it is the consumer who engages actively with the market and the state in order to promote a food system that is more accessible, of higher quality, and with a higher degree of trust. These authors' argue that the growth of AFNs "results in the availability of new, alternative forms of organization of food provisioning, [and that] this opens up new interfaces and space of negotiation with market parties and public administrations" (Renting et al., 2012, p. 298).

Figure 4.3: Consumers and the Industrial Food Model (Renting et al., 2012)

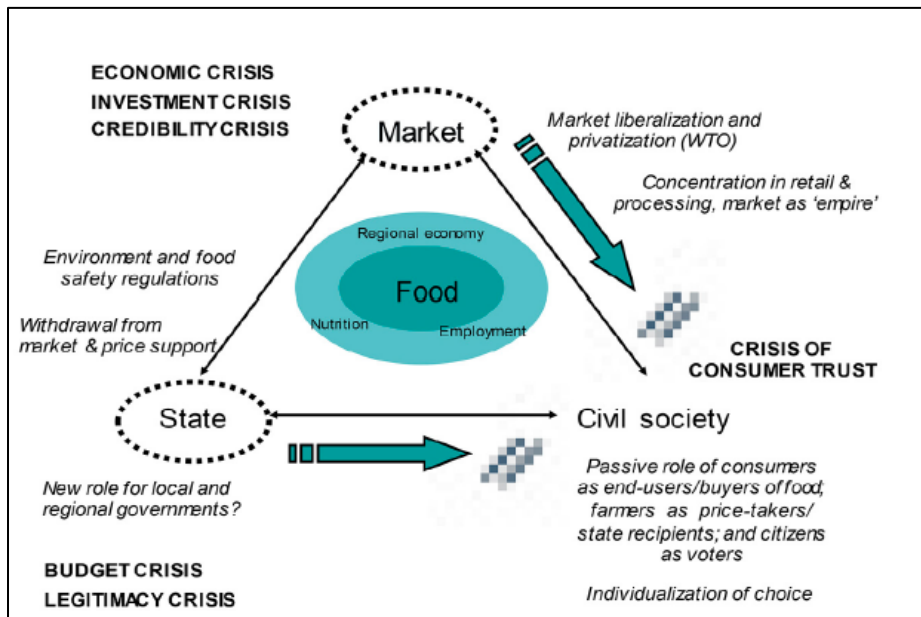
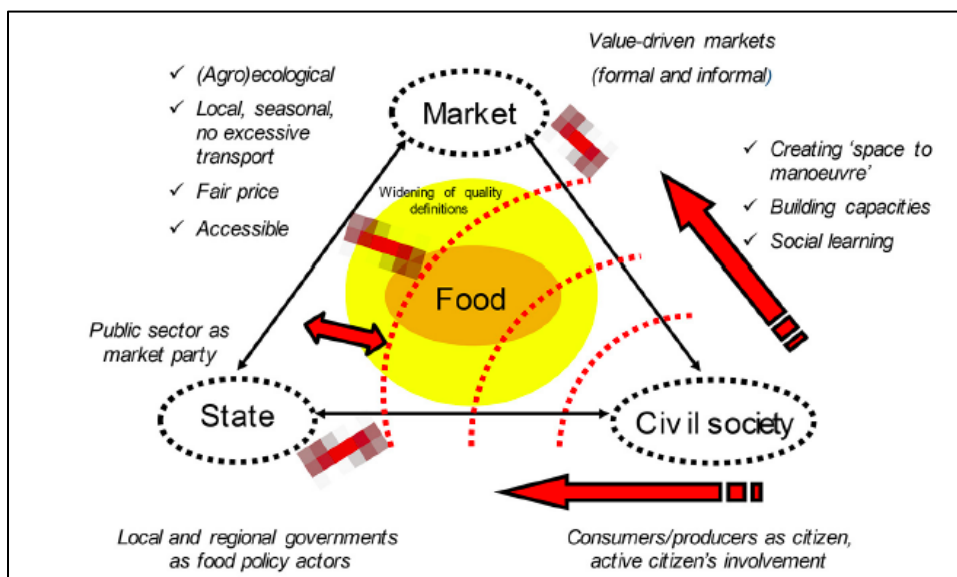


Figure 4.4: Consumers and the Alternative Food Model (Renting et al., 2012)



The model of AFN consumer civic engagement derived by Renting, Schermer, et al (2012) shown above is based on a European focus, however, as is the majority of the scholarship on practices of civic engagement through alternative food consumption. Food scholars based in North America repeatedly note that far fewer studies have been conducted on the intersections of ethical consumption and civic engagement in North American as compared to Europe (Johnston et al., 2011; Newman & Bartels, 2011; Willis & Schor, 2012). Notably, discourse around ethical consumption in the North American context tends to promote environmental values over hunger, social justice, or labor concerns (Guthman, 2003; Johnston et al., 2011). Further, practices of ethical consumption tend to derive from classed consumption perspectives (Josee Johnston et al., 2011), creating a “privileged entry point” for political or ethical engagement through consumption habits (Barnett et al., 2005).

There is deep debate within the literature on the implications of consumer-driven activism and political engagement through “ethical” consumption practices (Huddart Kennedy, Parkins, & Johnston, 2016). On the one hand, scholars find that neoliberal norms “deplete activism” and constrain market-based approaches to civic engagement (Pottinger, 2013), arguing that consumption practices are tied only to acts of “selfish pleasure,” while citizenship relates to the “pursuit of the social good” (Cabrera & Williams, 2014). Some scholars further contend that ethical consumption is motivated entirely by goals of self-protection, and are in fact contrary to any activist or political aims (Szasz, 2007). The concern here is that because consumption is an individualized act, activism through consumption practices takes the place of the pursuit of political action, which is seen as a collective act (Baumann et al., 2015; Newman & Bartels, 2011; Willis & Schor, 2012). Thus, activism through consumption is viewed as an “uncritical” strategy for change (Bryant & Goodman, 2004) in which consumers “learn” to demand less of the state” (Baumann et al., 2015, p. 414) by practicing change solely through market actions.

Along these lines, scholars argue that the opportunities for consumption choice pave the way for civic engagement through consumption practices that are available and attainable to some consumers and not to all (Goodman et al., 2010). Similarly, some scholars caution that describing certain practices of food consumption as “ethical” implies that “other ways of eating are somehow *not* ethical, moral, value driven, critical or politically charged,” (Beagan et al., 2010, p. 753 emphasis in original). In their recent publication on governance, Miller and Rose (2013) claim that subjectivity is formed through opportunities of consumption choice, and that governmentality of citizens is enacted by control of consumer market choice. In this framing, the perceptions of what “ethical” consumption actually *is* are further being consumed and reproduced within the market space (Barnett et al., 2005; Rose & Miller, 2013).

Opposing scholars argue that consumers can *enact* citizenship through “responsible” consumption habits, behaving as “citizen-consumers” (Johnston et al., 2009a), in which the rise of “ethical consumption” is viewed as being an effective channel for the pursuit of social change. In this perspective, consumers play an active role in civil society-

driven governance through consumption patterns (Renting et al., 2012). In contrast to the previous arguments, in this opposing framing scholars argue that ethical consumption *is* a form of collective action that is socially organized and consciously mobilized (Barnett et al., 2005). Researchers in this camp have employed large consumer surveys to demonstrate that ethical consumption is significantly positively related to increased political engagement, arguing that consumption habits result from social and collective practices, and that they build political consciousness while supporting collective action and activism around social and political issues (Baumann et al., 2015; Willis & Schor, 2012).

In one example, Baumann, Engman, et. al. (2015) surveyed 1200 consumers on their political attitudes and behaviors and their consumption attitudes and behaviors. The researchers found that, “political consumption is strongly and positively associated with engaging in traditional political behaviours such as voting, attending protests, and signing petitions. In other words, [that] consumers’ political activities are not necessarily being crowded out by their political consumption... [and that] the individualized acts of political consumption are not at odds with collective forms of politics,” (Baumann et al., 2015, p. 413-414). Similarly, in an analysis of two large-scale consumer surveys researchers Willis and Schor (2012) argue that their results “contradict the view that engaging in political consumption undermines, displaces, or substitutes for conventional collective and political involvement,” (p. 161).

In the following section, I engage in the debate over ethical consumption and political action as it plays out specifically within the *digital market space* of the tech-AFN, focusing primarily on the ways in which community building in digital space appears to promote civic engagement and to leverage ethical consumption towards activism.

4.1.1: From Ethics to Activism in the Tech-AFN

To gain insight into consumer engagement and activist practices in digital market space, I analyzed data from three private Facebook Groups used by Farmigo’s volunteer organizers. These Facebook Groups were created by Farmigo’s staff for the Farmigo Organizers across each of the three operating regions to share food photos, advice on growing their pickup site order numbers, cooking recipes and ideas, local community food events, etc. In other words, these Groups were designed specifically to build community to support and grow Farmigo’s “ethical consumption” customer base. The majority of Farmigo’s Organizers appeared to participate at least somewhat in these groups, and for those Organizers who opted to participate, the sites seem to be successful in their goals. From the Groups implementation to the company’s closure, there was a high degree of traffic of both posts and comments across all Facebook groups, ending with a great deal of mourning at and around Farmigo’s eventual closure, and requests from the group to keep in touch both digitally and in-person.

The unique posts (not including post comments) in all three Facebook groups were analyzed in order to determine the relationship between building community around “ethical consumption” and consumer participation in food-related activism and civic

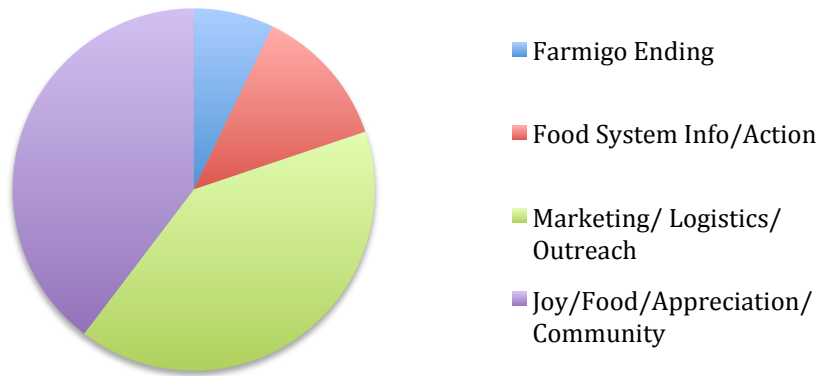
engagement. Posts were grouped in four categories determined through a dynamic process of etic and emit coding: *Farmigo's Closure - Farmigo Marketing, Logistics and Outreach - Food, Recipes, Joy, Community, and Appreciation* – and *Food System Information and Action*. There were 297 unique posts in the Seattle region Organizers group by 45 different individuals, 237 posts in the San Francisco group also from 45 different people, and 124 in the New York region group by 50 different individuals. In context, these numbers represent posts from the majority of Organizers in the Seattle region, over half of the Organizers in the Bay Area region, and about one-third of the Organizers in the New York area. It is important to note that many Farmigo Organizers also hosted their own Facebook groups for their individual pickup communities, and that they also commented on the re-posting of information on those groups. An in-depth analysis of individual community Facebook Group posts, however, was unavailable and is also beyond the scope of this research study.

Data analysis of the Organizer Facebook posts appears to show a positive connection between digital ethical consumer community growth and food system engagement and action. In the Seattle region Group, 17.5% of all posts related to Food System Information or Action, with 25% of those posts coming from Farmigo's staff. In the San Francisco region Group, 12.6% of all posts related to Food System Information or Action, with 40% by Farmigo staff. Finally, in the New York/New Jersey region Group, 13.7% of all posts pertained to Food System Information or Action, with 41% from Farmigo staff. A visual breakdown of Facebook posts by category and region can be seen in *Figures 4.5 – 4.7* below, additional examples of posts in each of these four categories can be found in *Appendix Two*.

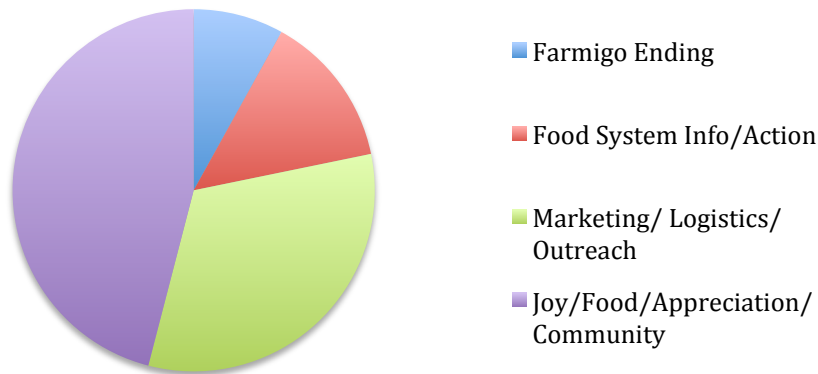
Figure 4.5 – 4.7: Farmigo Facebook Group Post Categories (accessed July 17, 2017)



San Francisco Farmigo Organizers Facebook Group Posts (N=237)



New York Farmigo Organizers Facebook Group Posts (N=124)



For each regional Group, the *Food System Information and Action* posts were divided into thirteen categories developed through a dynamic process of emic and etic coding. These categories are: *Local/regional food resources and policy, small-scale sustainable food producers, toxicity and public health, sustainability and food waste, farm and food workers labor, food equity and food justice, GMO labeling and legislation, farming and farmland preservation, national food policy, food transparency and corporate power, food and tech intersection, and presidential politics*. For the purposes of this analysis, some posts were grouped in multiple categories, though the majority of posts were categorized uniquely. Graphs of each region's *Food System Information and Action* posts, and examples from posts in each category, are listed in *Appendix Two*.

Based on this data reviewed above, there appears to be a relationship between community building around ethical consumption and consumer engagement in food

system advocacy and activism. In this case study, consumer engagement was initially promoted by, though not entirely driven by, civically engaged Farmigo staff members. Notably, the group with the highest engagement in topics beyond small-scale and local food production was the Seattle region, the group with the highest use of the digital community-building platform. Therefore, I argue that the digital platform of the tech-AFN may offer *increased opportunities* for bi-directional knowledge pathways between alternative food consumers and retailers in terms of access to both increased food system information (for consumers) and increased data capture on purchasing habits (for retailers).

While there is ongoing debate over the degree of impact that ethical consumption has on political action and civic engagement, it appears that having a digital platform for community building around ethical consumption helps to facilitate increased engagement in food system politics and participation beyond merely the individual consumer role. My findings support the aggregationist model of collective action in which a community with weak ties (such as an online Facebook Group), can promote a culture of market action towards individual behavior promoting collective social change (Willis & Schor, 2012). In this scenario of self-selected “ethical consumers” the socialization around consumption patterns appeared to spread to socialization around civic engagement and education.

Through this analysis much of the scholarly critique about race and class privilege in ethical consumption and the over-focus on environmental issues within the food movement over issues of labor and hunger (Guthman, 2003), hold true. However, the scope of interest and variety of posts on different food system issues appeared to increase in all regions over time. If these digital ethical consumer food communities, these online Groups, had had the opportunity for continued growth, the possibility remains open that they might indeed have unified as a “powerful lobbying force” (WA01) for sustainable and just food system goals. Arguably, the digital platform for consumer engagement and community building, though intended as a platform for Farmigo’s marketing tactics, created a substantial contribution to the promotion of the food movement in the three case study regions.

Researchers of social movements and digital technologies find that social media platforms such as Facebook can be successfully used to mobilize collective social action and transition digital community building to off-line social movements (Harlow, 2012; Lim, 2012). Thus, combatting the concern that ethical consumption is solely an individualist action that takes the place of collective movements towards social change, ethical consumption that is *tied to* digital platforms of community-building and connectivity, appear to increase both participation in increased ethical consumerism as well as participation in collective social and political change. Thus, I argue that, due to increased opportunities of online community building and information sharing in digital space, the tech-AFN is uniquely placed within the alternative food system to leverage ethical consumption towards increased political engagement.

That said, the concerns that ethical consumption is “primarily an elite social practice... thought to attract wealthy, educated consumers,” (Johnston et al., 2011, p. 293) remain well-founded. The barriers to entry into “ethical” consumption habits, including participation in Farmigo’s online marketplace and online communities (discussed further in the following section), remain limited by economic opportunity and by social capital. Participation in ethical consumption practices is correlated with race, class, and education in that ethical consumers trend towards being white, highly educated and upper or upper-middle class (Baumann et al., 2015; Bryant & Goodman, 2004). Thus, the collective change emerging from communities of ethical consumers is likely to be limited in scope, if not at least in the diversity of its membership. The results of the data analysis in this case study echoes these concerns, showing greater consumer engagement in environmental or health-related food action topics over issues related to labor, hunger, or food justice.

In many ways this data set is incomplete, as it represents only the beginning of community building around ethical consumption, and the group posts trail off after a flurry of disappointment on the company’s closure. However, it is notable that the ratio of posts in the *Food System Information and Action* category increased in all groups over time, leading to speculation that engagement in food system legislation and action would likely have continued to grow with increased market growth in each region. In interviews with Farmigo staff working on the consumer-facing side of the company’s operations, interviewees expressed confidence that customer engagement in food policy would continue to grow over time. The quote from one Seattle-based employee, the region with the highest rate of political engagement, shared below demonstrates the ways in which this particular employee perceived consumer engagement and action and the potentials of additional time spent on the promotion of ethical food consumption.

“We both had really strong visions for what [Farmigo] could be, and I think those would have been possible given the time and effort to pull it off. Mostly the time, because we had the effort. I saw it as this amazing opportunity to integrate politics and purchasing, and bring people out. [Our customers] were already asking for ways to engage more heavily in what they were doing. And I was working on a plan to make that happen... [I would have liked] to spend three months looking at the local political landscape, and that would 100% have been in line with the business and the mission, because, if we decide that state policy needs to help fund greenhouses - that was my example that I kept using - so that we can keep growing kale throughout the winter. Or if we wanted to support dairy subsidies or whatever for local cheeses. All those things. We would have had an already active group of people who would have been willing to take that on. And that would have been a really powerful lobbying force.” (WA01)

4.1.2: Community Food Pickups and the Organizing Model

Organizing is “not inherently political, it’s just a different approach to relationship building and growing a network of people.” (CA11)

Farmigo's consumer-facing structure revolved around a "Community Pickup" model in which volunteer "Organizers" hosted weekly grocery pickups at their homes, schools, work sites, or local businesses such as coffee shops, ice-cream parlors and yoga studios. The Community Pickup model was adopted for four key reasons. A primary reason for the company's implementation of the community pickup is that the "last mile" in delivery logistics is the most complicated and most costly. The Community Pickup model allowed the company to save resources by placing the work of the "last mile" onto the consumer, such that the customer is responsible for collecting their grocery order from their neighbors. A second key reason for Farmigo to adopt a Community Pickup model was to promote marketing and company growth. Farmigo's Organizers received training and material support from the company and were tasked with both creating and growing their pickup "Communities." In exchange for their efforts and for the use of their space as a pickup site, Organizers were offered the option to either receive 70% off of their own grocery order, or to receive a 30% discount on their personal grocery order *and* 10% of the net profit made by their Community's order each week.⁴ Even with large orders, the amount of money raised through the Organizer model would not provide a livable income. In general, most Home Site Organizers choose to receive the large discount on their personal grocery orders, School Sites tended to use the 10% profit to promote fundraisers within the school, and most Work Sites also used the 10% profit as donation opportunities to promote local charities. In return, Farmigo had a low marketing budget for a company of its size; the theory being that the Organizers would be incentivized enough to grow and market their own Communities.

The third reason for Farmigo's adoption of the Community Pickup model was to position itself within the rising "sharing economy" as part of its tech goal of *market disruption*. Startup "success" models such as Uber and AirBnB were seen as exemplary models of market disruptions because they shifted market supply by capitalizing on property that had previously been private, such as personal vehicles and homes. In the tech world these companies are viewed as not simply creating a better and faster way of providing an existing service, but as transformative actors in the ways in which the service could be provided. In contrast, home grocery delivery and physical grocery stores already exist. By making public the private spaces of homes, schools, and work places, etc. the Farmigo Community Pickup model aimed to ensure market disruption through the leveraging of private spaces for retail transactions, implementing a "sharing economy" along the lines of other successful startups.

The final reason for the adoption of the Community Pickup model lies in the organization's CSA roots and attempts to digitize the "feel" of the Farmers' Market; in other words, Farmigo was trying to both leverage and to create "community." The majority of CSAs across the United States operate through a communal pickup arrangement, though the pickup sites are often less structured than the model that Farmigo attempted to promote. In creating an "online farmers' market" the staff at

⁴ In January 2016 the company decreased the Organizers' discount to 50% for all new Organizers to cut costs, although existing Organizers could retain their 70% discount indefinitely.

Farmigo believed that it was important to capture the Farmers' Market "community feel," and that a Community Pickup, complete with food tastings and time to connect with neighbors, would help to provide that feeling.

The backgrounds of the tech "sharing economy" to leverage market disruption and the traditional AFN community pick-up models of CSAs and Farmers' Markets stem from divergent histories and goals, and yet they manifest similarly from an operational perspective. The primary difference, and one explored further in this section, is that those entering the community of the "sharing economy," Urber drivers or AirBnB hosts for example, are participating for their own financial gain. In contrast, those supporting the AFN community model, CSA pickup hosts for example, are generally mission-driven and not seeking to receive financial compensation. Farmigo's Community Pickup model was an odd mash-up of these two contexts, in which Organizers were recruited as mission-driven volunteers, but were also mildly financially compensated and encouraged to be economically-driven in their community recruitment goals.

Ultimately, for Farmigo the Community Pickup model was a mixed success. The Organizers were responsible for their own marketing, outreach, and communication to their communities. From a revenue standpoint, some Organizers put a great deal of effort into growing their communities and their members' order size and were financially successful (total community orders and average order value, AOV, being two key data metrics that Farmigo collected and sought to increase), while other Organizers exercised the same efforts and yet were unsuccessful. Some Organizers, however, put little effort into growing their communities and were still successful, while others also put in little effort and were unsuccessful. Ultimately, Farmigo's outsourcing of marketing and customer growth to Organizers in multiple settings (Home, School, Work, etc.) and across multiple states, in differing areas of density (city and suburbs), meant that *data capture* on the factors for successful Communities for the company was immensely challenging. Further, the company's high-speed startup culture (see *Chapter Three* for more on venture capital culture) also meant that there was a lag time between the interpretation of measurements of successful growth, and in the resources and directions taken towards growth goals. In other words, the Community Pickup model made it extremely challenging for the company to track its own growth and to accurately isolate factors of its failure or success, an ironic feature given the enhanced opportunity of data collection for most tech-AFN models.

Furthermore, while the Community Pickup model appeared to work well in certain regions (see *Chapter Five* for more on regional geographic differences), in many areas it was considered to be an inconvenience or a disincentive for consumers to buy-in to the Farmigo model. One former staff member interviewed explained it to me this way:

"You can only have, as you know very well, so many mission-driven die-hard success stories. At the end of the day, it has to be convenient enough, it has to be priced affordably, to break people's habits. Because you're not only breaking people's habits, you're asking them to pay more and pick up their food." (WA02)

In addition to these complications with data capture, there was internal tension in the company regarding the role of “community” in Farmigo. Throughout my interviews, many former staff expressed concerns to me about the Community Pickup model. Although it was stated differently, the theme running through their concerns was whether Farmigo was *creating* communities or if it was *capitalizing* on existing communities in order to promote its product. For example:

"I think the ultimate expectation ... was a very idealistic, leisure class of aspirations. Even the upper echelons of earners in cities like Seattle and the Bay area and NYC aren't going to buy into that and have time to [meet their neighbors]... Just because they're both picking up the same kale doesn't mean that they need to talk... I think that was just trying to shoe-horn in something that wasn't needed or asked for." (CA10)

"I think we had this dreamy vision of [home sites] being a place where people congregated and talked about food and solved the world's problems ... we didn't provide the tools for that ... people are busy! People don't need more friends. If I want more friends, I'll make them." (CA09)

Ultimately, it appears from this research that the company was doing both; Farmigo was simultaneously tapping into existing communities to promote and expand its product market, and also cultivating communities around food in both physical and digital space (see the previous *Section 4.1.1* on the role of the tech-AFN in debates on ethical consumption and political engagement). Farmigo’s Community Pickup model complicates the hybridity of this tech-AFN case study example. In this model the company was simultaneously attempting to enter the “sharing economy” and the “alternative food economy” through a standard capitalist framework. The deliberate use of “organizer” and “community” language aimed to mask the goals of market expansion within perceived alignment with the goals of the alternative food movement. Simultaneously, the deliberate implementation of community organizing techniques and food system training and education, meant that the company also supported community leaders in their ability to engage in food movement goals and to organize around issue-based community mobilization. By positioning itself in a hybrid space between the financially-driven startup and mission-driven AFN, Farmigo’s organizers suffered from an identity crisis. On the one hand, they were expected to spread the message of the value of ethical consumption through the promotion of their community sites, and on the other, if they did not grow their membership and revenue fast enough, they were quickly shut down and removed from the company.

An additional factor to consider in Farmigo’s Community Pickup and Organizer model is that it was designed to mimic a grassroots organizing model, with tactics (and staff) coming literally out of Barack Obama’s presidential organizing campaign. One of the leaders involved in implementing the organizing model explained the history the model’s development to me. He explained that although the initial organizing model “*was in place before I got there. What wasn't in place was the sort of, the strategy and the tactics for finding and motivating those people, and the tools that you give them to grow.*”

... And what [the company] came to me with was, 'Hey, we have this model, and we've been talking to a bunch of experts, and they all keep saying, 'Oh, you're basically building an organizing model, you need to find someone who understands organizing on this scale'" (CA11). In this way, Farmigo's grassroots organizing model, and what became their primary marketing model, was built upon the assumption that Organizers were intrinsically motivated by the company's *mission*, and that mobilization around the mission would help promote the adoption of the company model and growth in sales.

The implications for the grassroots organizing framing for the Community Pickup model meant that Farmigo's organizers tended to be ideologically aligned and mission driven, rather than loyal to Farmigo's product or process *per se*. This mission-driven motivation led to some tensions around Farmigo's practices. For example, in the early stages of the Seattle-area Farmigo market, Organizers were brought onboard before the marketplace itself was set up. To meet the demands of an early stage and very small consumer base the company relied on a local distributor for support. This distributor also provides industrial products to mainstream grocery stores (although Farmigo was sourcing only through their local and organic section), and several new Organizers were so upset about this "betrayal" of what they felt they had signed up to be a part of, that they left the company.

Another implication of Farmigo's use of grassroots organizing tactics for online marketing campaigns is that before its closure the company was well positioned to promote mission-driven mobilization for policy change. For some employees their goal at Farmigo was less to promote Farmigo's product as it was to engage leaders in the movement for system change. While Farmigo's Community Pickup model may have been a mixed success for the company in terms of marketing strategy and data analytics, it may well have succeeded in growing and strengthening the alternative food movement in the Farmigo operating regions. It provided an easy opportunity for engagement for the Organizers in an alternative food community, and the built-in tools to position themselves as leaders to grow these communities in their neighborhoods. To these ends, the promotion of community is essential to the goals of both the food movement (Aucoin & Fry, 2015), and to the translation of ethical consumption to political action (Beagan et al., 2010; Willis & Schor, 2012).

There were, however, internal and external tensions in the adoption of an inherently campaign-oriented *political* organizing model into an issue-based model organizing for business market growth. A political campaign has an end-point, while a corporate marketing campaign (with the unexpected exception of the company's closure) does not. Similarly, the "ask" in a political campaign is for a person's vote, or for volunteer labor for continued campaigning efforts. In contrast, in a marketing campaign, the "ask" is for a person's dollars towards purchasing a product. Farmigo is not the first company to apply political organizing tactic towards marketing goals, but they are likely the first tech-AFN to do so, largely due to the career backgrounds and experiences of those who created the organizing program within the company.

Organizers' Voices – Answering: “Why did you decide to become a Farmigo Organizer?”

“I used to be a manager at a local software company, so one of the things I really enjoy about being an organizer is tracking my weekly numbers and growing my group! Of course, I also enjoy getting to meet more like-minded people in my community.”

“As a chef, I enjoy incorporating new items in my menus and Farmigo affords me that opportunity.”

“I decided to become an organizer because I am passionate about eating fresh, healthy and locally sourced food. I love that a majority goes back to our local farmers to ensure we are promoting good, clean organic and locally sourced food growth.”

“I decided to become a Farmigo organizer so I could make it more feasible for my family to eat the caliber of food I wanted to provide them and to be a part of healing the food system. I also wanted to be able to contribute to the school community in some way so it's a win win!”

“I am pretty passionate about food and health and am hoping to get some higher quality food into the school lunch program. Farmigo is a natural step toward getting folks to be more familiar with healthy, local food.”

“I first learned about Farmigo from a [Facebook] ad and proceeded to research the company on my own. I loved everything they stood for...bringing fresh food into our community, supporting our local farmers and raising money for our school. It's amazing how many people you can positively impact by launching a Farmigo site!”

“We decided to become community organizers because of our passion for good, local food and desire to support local farmers.”

“I come from a long line of amazing Sicilian home chefs. I grew up growing and eating fresh tomatoes, green beans, jalapeños, eggplant, zucchini, leafy greens, etc. There's nothing that tastes better than what you grow in your own yard, but Farmigo is designed to be nearly as good, with the convenience of online ordering and a broad selection of products. The things I make simply come out better when I start with fresh, organic, local raw materials. And my daughter's school gets 10% for their amazeballs school garden with a solar powered irrigation system. What's not to love?”

In the previous section I discussed the ways in which the cultivation of digital communities centered around ethical consumption do appear to connect to the promotion of civic and activist engagement. In this section, I examined the ways that the promotion of *community-building leaders* (Farmigo's Organizers) simultaneously promoted increased product marketing for the company *as well as* growing the potential to mobilize for system change. Many scholars of social movements build on

Bourdieu's concepts of *habitus* and *practical sense* to argue in favor of the role of value-based socialization in communities to strengthen activist goals (Beagan et al., 2010; Carolan, 2016). Food movement scholars, in particular, have found that connection around the "feel-good mode of consumer engagement," around "the pleasurable and achievable aspects of local eating," do in fact appear to mobilize communities around broad food system goals (Huddart Kennedy et al., 2016, p. 16). Similarly, from a sociological social movement framing (Benford & Snow, 2000), collective action is strengthened through the ties of collective identity built by shared values and experiences of social movement actors (Bauermeister, 2016). In this case study, a shared collective identity around "ethical" consumption goals, both building on traditional AFN strategies and leveraging new tech tools, served as a platform for community building and mobilization in the food movement.

4.1.3: Consumption Patterns within the "Farmigo Family"

"I bought all my groceries at Farmigo - I carried that shit home." (WA05)

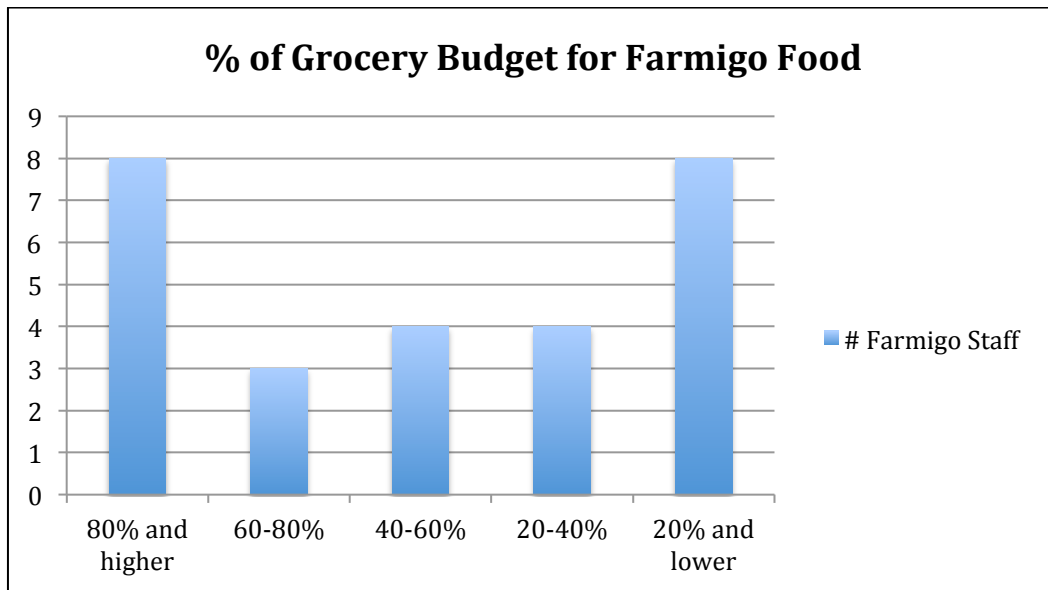
Taking Farmigo Food Home

In the fifth interview I conducted for this research project, the interviewee remarked to me off-hand that she had been so committed to Farmigo's mission and market model that, while she was employed by Farmigo she had purchased all of her personal grocery items through Farmigo's market place. I was shocked. *All of her groceries?* I happened to know the salary information for this individual, as well as her personal financial information, and it was on the lower end of the majority of Farmigo's employees. This individual earned less income than I did, and I certainly had not purchased the bulk of my family's groceries from Farmigo, primarily because I felt that I could not afford to. I knew that this individual was not someone who had excess money to spend on specialty food items. Rather, it appeared, this was an example of the ethical food consumption that Farmigo was attempting to promote with its Organizers and Members. Not ironically, this employee had been working (for me) on the consumer-facing side of the company, promoting the model of ethical consumption with Organizers and coaching them on promoting this model to grow their pickup Communities. I had also been working for the consumer-facing side of Farmigo (thus why I knew this person's salary), but I'd estimate that only about 20% of our household grocery budget went towards Farmigo foods. For the rest of our food procurement, my family relied primarily on produce from a traditional summer and fall season CSA, as well as a variety of mainstream grocery supermarkets. After that initial revelation, I asked all future interviewees (living inside Farmigo's operating delivery zone) about their personal purchases from the Farmigo marketplace while they were employed.

Farmigo employees purchased Farmigo's foods in a bi-modal pattern, with one large group committing whole-heartedly to the Farmigo market model and putting a high percentage (or self-reported "all") of their household grocery budget towards Farmigo

foods, while the other group barely supported the model with their personal dollars, spending only a small percentage (or none) of their household budget on Farmigo’s foods. Though the sample size is small, there are some conclusions to be drawn here. Out of 27 respondents to this question, 8 spent 80% or higher of their budget on Farmigo foods, with 3 of these 8 claiming to purchase all of their grocery needs through Farmigo’s marketplace. In contrast, another 8 out of 27 respondents also spent less than 20% on Farmigo foods, with 3 of these claiming to purchase no Farmigo products at all. The remaining respondents averaged a mid-range (20-80%) of their grocery budget spending on Farmigo’s food (see *Figure 4.8* below).

Figure 4.8: Percent of Farmigo Staff Household Grocery Budgets spent on Farmigo Food



This distribution of Farmigo staff purchasing patterns is not based on total quantity of food ordered, but on estimated percentage of household grocery budget spending. Thus, the bi-modal consumption habits displayed here appear to demonstrate a pattern of the staff’s *ideological* food consumption. It is important to note that employee purchasing preferences did not correlate to their leadership status within the company, (and therefore, presumably, to their pay scale and household income level). Thus, rather than demonstrating purchasing power, employee spending on Farmigo’s products appears to demonstrate an ideological alignment with the perceived value of Farmigo food purchasing.

The staff members that spent a higher proportion of their household income on Farmigo’s products tended to be closely mission-aligned with the company’s goals, and performed their grocery shopping as a political act. Notably, all three respondents who claimed not to purchase any Farmigo products were fulltime warehouse employees who commented that they were able to take home excess product, though they noted that they likely would not have purchased food through Farmigo even if that was not the case. It is also important to note that all Farmigo employees received a 30% discount on their food order from the market price. Many interviewees, across all

spending percentiles, remarked that they would not have purchased Farmigo's foods to the degree that they had been without the added benefit of the employee discount.

There were notable gender differences in the purchasing preferences of the Farmigo staff. Of those spending 40% of their personal grocery budgets or higher on Farmigo foods, 3 out of 16 were men (and 13 of 16 were women). Of the group spending 80% of their household budget or higher, 2 of 8 men (and 6 of 8 were women). In contrast, of those spending lower than 40% of their household budget on Farmigo foods, 9 out of 13 were men (and 4 of 13 were women). Of the group spending 20% of their budget or lower on Farmigo, 6 out of 8 were men (and 2 of 8 were women). There are two likely reasons for the gendered differences in Farmigo staff consumption patterns. One is that women tend to still hold the primary responsibility for food provisioning both in AFNs (Bruce & Castellano, 2016), and in general (Morganosky & Cude, 2000). Women also tend to cook more, and the food available for purchase in Farmigo's marketplace tended towards raw ingredients requiring both time and skills for preparation.

The second likely contributor to this gender dynamic is the correlation between high percentages of Farmigo purchasing patterns and those employed by the company to work on the consumer-facing side of operations. Of the 11 people who self-reported purchasing Farmigo foods as 60% or higher, all 11 worked on the consumer-facing side of the company. In contrast, of the 12 individuals who reported purchased Farmigo as 40% of their household budget or lower, only 2 worked for the consumer-facing side of operations. Those in the middle, the 4 people purchasing between %40-%60 of their groceries, were evenly split, with 2 out of 4 working on the consumer side. It is logical that those employed to promote Farmigo's marketing and work with consumers would be more likely to be ideologically-aligned with ethical consumption goals. The majority of Farmigo staff employed to work on the consumer-facing side of the company's operations were women, likely related to women's disproportionate engagement in AFN procurement and to food provision and consumption generally.

Thus, there appear to be several dynamics taking place within the Farmigo staff-as-consumers group. One is the internal staff food-tech split, with those staff working most closely with the consumers falling on the ideological food purchasing side. Second is the gendered purchasing dynamic, suggesting that more research is needed on AFN consumption patterns and gendered labor roles. Primarily of note is the bimodal distribution, demonstrating that for the staff at least, Farmigo did not represent a *component* of household food procurement, but rather was positioned either as the *foundation* of food procurement or as an added *novelty*. The intense adoption of the tech-AFN by some former staff members bodes well for the potential customer base of future tech-AFN models.

Farmigo Employee Voices

"I didn't order. Well, I took home some stuff. I had a garden where I was, and, I mean, the things that I would take home were special things, like blueberries or strawberries, or like, cookies, or anything expired, like expired dairy. ... [AM: why?] I wouldn't use it - well, I couldn't figure out what you would - well, I knew that we weren't getting the best of the best stuff. I knew where to get it. I enjoy going to Farmer's Market ... There's this one farm I always go to, I love having the personal connection... I love having something to do, it's like an errand that, a very pleasant errand to do. I like to get a cup of coffee and run into people randomly, and see just like - see the selection, just get a sense of who's growing what. Oh, is this farmer ahead of the others, and where do they grow? You can get kind of a little survey of what's happening in the area, if you're looking for it." (CA06)

"It was a fair bit. Let's call it maybe 50%. Because I have a really awesome neighborhood farmer's market, and it's on Sundays, and I can go, and the farms are great, and there's a lot of variety. So, even though I have my Farmigo discount, I still would like, only buy certain things from Farmigo and wait, because I know I could get the things at the farmer's market that I liked better, or that I really wanted, or just that I could use my dollar in that way. I'm a big believer in, like, your dollar is your vote kind of a thing. So, I'm giving Farmigo my dollar. Even though it's slightly less convenient, I know. But it's because I'd rather give to Farmigo than to Whole Foods. Like I drive now, past a least three Whole Foods, to go to my local co-op, because I would rather support them. And what they have's great." (CA07)

"Anything that was composted I would take home, I'd make a lot of smoothies. I mean, if it was just going to go in the garbage, I would just take it home.... Like, I was eating tons of old kale and berries that were rotten. But, I loved it because not only was I saving money by not buying all those things, but also I had to find recipes to eat it all. So, I got really comfortable with chard. There was lots of chard and kale... Some things we donated to the food bank, but things that were going to be composted I just took home. Me and my team. And I would buy the necessities. So, cheese I would stock up on.... The curry. I loved those curries. Those were amazing. I think I lived off those curries for a long, long time. With chard. Chard curry." (WA09)

"Actually, I think it was probably like 80-90% a week. It was a lot. I started to spend \$75-\$100 with my discount, a week.... And I honestly think, and this is just my own bias for me to be able to work out, and to evolve - to articulate and grow and brand, I really need to experience it. And to me that means really using and growing to understand a product. So, like, I wouldn't have thought I was doing my job justice, had I not been experiencing it every single week. And living the experience of my customers." (NY07)

"[I purchased] probably like 90%, maybe even more. Like, I hardly ever went to the market. Because I started as a customer, I started as a way to not have to go to the grocery store. And then I did, my first summer, so I started in October as an Organizer, and then in June I started working there, and in July we did the Farmigo challenge, where we had to only eat Farmigo for three weeks. And that was a pretty transformative experience in terms of how I eat and cook, still.... It was pretty fun, and challenging, getting back to how I like a challenge. [The marketplace] had no fish, or chicken. So, my only protein was - we didn't even have beans! We had almost nothing in California. ... So it was totally a challenge, but it was fun. It also made me realize that I can always cook a meal. It also made me realize that I can do something very simply. I think I made a lot of vegetables in a pan, and I still do that a lot...that experience made me feel very much that I can get all my groceries doing this." (CA08)

"I would say probably 80-95%, I mean, if they had alcohol it probably would have been everything. But I mean, we eat a lot of citrus, so I'd buy citrus. We eat a lot of avocados, so I would buy those ... The meat was expensive, but we had a discount." (CA04)

"15-20%, somewhere in there. I fully admit that I was getting it more for unique items that I knew I wasn't going to be able to find anywhere else. If I did know I could get it somewhere else to be completely honest, I just wouldn't order it if I knew I could get it. Also, as somebody who quite frankly has struggled with weight before - I try to be pretty conscious about only having things in the house that I'm going to eat within the next day or two. So, by planning that far out, I don't want to have to store things, because I know that I'm just going to eat it.... Particularly if this stuff is perishable and I know I'm going to have to eat it within a certain time, and I'm trying to WATCH what I eat." (NY01)

"At my peak, 40. 40% or so. Price, for me, was a huge deal. I also didn't work close to my pickup spot. But, for me personally, there was probably a closer one that I could have gone to, but it wasn't convenient. I admittedly, am someone - I'm more Uber than Craigslist. I'd rather do it online and not worry about talking to someone about it. Which makes it come to mind that I might not have actually done Farmigo unless I was an employee, because I just wasn't sold on the social aspect of it." (NY05)

"100%! Yeah, I ate completely from Farmigo. Not when I first started as an Organizer. I would say - and this is, I think, really interesting.... I didn't really start having a large order size until probably being a year into being an organizer. Even though I was getting this crazy discount the whole time and everything. I think because primarily I was viewing it as a CSA, and my CSA was fruits and vegetables only. And so, that's what I was doing. And then I realized that I could get veggie burgers that were delicious. I could get... all that kind of stuff and it made me happy. And then I just decided that I could eat all from Farmigo... Everything Farmigo! Ultimately, I stopped going to Whole Foods." (NY06)

4.2: Equity and the Tech-AFN Consumer

As mentioned previously, one of the major concerns with the tech-AFN in terms of consumers relates to issues of equity. These concerns mirror prominent critiques of traditional AFNs, in that AFNs primarily serve the interests of white and middle class consumers (Wilson, 2013). Alternative food markets are often invisibly raced and classed, resulting in alienation and displacement of lower income and non-white consumers in these market spaces (Anguelovski, 2015). Critiques on the exclusion and inequality concerns in AFNs span across cultural, social, and political processes of producing and purchasing “alternative” foods (Alkon, 2014; Allen & Guthman, 2006; DuPuis et al., 2006; Guthman, 2008b; Mares & Alkon, 2011). Many food scholars also argue that by catering to elite consumers many AFNs fail to meet goals of food system transformation towards a more equitable and democratic model (Johnston et al., 2009; Mares & Alkon, 2011).

As a hybrid model operating in digital space, for tech-AFN consumers the equity concerns of traditional AFNs are compounded by concerns due to the digital divide (and beyond). As markets become increasingly digitized the accumulation of “digital capital” becomes increasingly important in order to attain essentials such as knowledge, employment, services and goods (Halford & Savage, 2010; Warf, 2001). Scholars of digital inequalities demonstrate that inequalities in digital spaces interact with and reinforce social, economic, and political inequalities in the physical world (Gilbert et al., 2008; Graham, 2011) impacting access to essential opportunities such as healthcare, education and employment. Beyond issues of digital access, the *content* of the internet itself is often created for a raced or classed user (Ash et al., 2015). Yet, there is a lack of attention in digital inequality scholarship to the specific impacts of the rise of online food retail, including the tech-AFN model, on food consumers.

The following section discusses the intersection of equity concerns in AFNs and digital space within the tech-AFN model. I first explore the geographic elitism of the case study model, in which entry into the tech-AFN marketplace was dependent upon physical residency within select areas of each region. Second, I discuss multiple interpretations of the terminology of “food access,” noting that the case study company advertised increased “access” to alternative foods in language that has a very specific (and oppositional) meaning within the food movement broadly. Finally, I review the race and gender roles of Farmigo’s staff and volunteer Organizers, noting the ways in which traditional gender roles in food and in tech compound gender inequalities in the operationalization of the tech-AFN.

4.2.1: Entering Through the Map

When Farmigo was operating, the consumer-facing side of the website and mobile app was entered through the portal of registering one’s location, first through region or state, and then through zip code. If one’s location was not one of the three regions where the company was then operating, there was an opportunity to enter an email address and zip code information, ostensibly to be notified on corporate expansion

into that area, but in reality primarily for company data collection into future sites for expansion. After selecting one's region, the next page brings up a map of pickup site options (see *Figure 4.9* below. For additional information on Farmigo's operational model see the *Introduction*). In all three regions, pickup site options were clustered in higher income areas. The clustering of these pickup sites by income was not coincidental, Farmigo relied on the pickup site "Organizers" to recruit "Members" (aka consumers) as a primary form of outreach, and the company advertised heavily to higher-income areas because of pre-established strategic determinations about their customer base and assumptions on the higher prices of Farmigo's food. Information on the company website indicated that if there was not a pickup site located in one's neighborhood, one could contact the company to create a new one. As the company was in an aggressive growth stage, at that time apparently anyone was welcome to start a Farmigo community (assuming the location fit within existing delivery routes), as long as they recruited ten (and later fifteen) new consumer Members. In reality, however, Farmigo's Organizers were recruited selectively through carefully targeted social media ads that were filtered by zip codes that met or exceeded a specified average income requirement. Though some Organizers were selected through their initial outreach and contact with the company, the majority of Farmigo Organizers (and thus, pickup sites) were derived from this targeted social media advertising campaign.

While on the surface Farmigo's goals were likely not intended to be exclusionary, the visual representation of the portal – the entry into – the user experience of the site made clear which regional communities were welcome and expected, and which were not. The decision by the company to target zip codes by income was primarily a strategic one. The types of food products sold through the Farmigo market (local, sustainable, organic, and "alternative" foods) are more expensive to produce and therefore more costly to sell. The company's market prices were high, and they didn't want to waste resources advertising to a clientele that could not support their market. And yet, the development of this spatially exclusive food delivery system sets up both digital and physical "spheres of exclusion" in which geographic location limits the ability of consumers to access and purchase alternative foods online in this model.

Across the United States, low-income and racial and ethnic minority neighborhoods have a disproportionate lack of supermarkets offering healthy and affordable foods (Walker, Keane, & Burke, 2010). These "food desert" patterns tend to stem from historic urban devaluation, the growth of suburban "big box stores," and racist practices of supermarket redlining. While alternative food initiatives claim efforts to "increase access" to alternative foods, numerous food justice scholars have demonstrated that communities of color and lower-income communities do *not* in fact tend to benefit from these initiatives (Allen, 2010; Guthman, 2003; Morales, 2011). Further, the activists and groups primarily promoting local and organic (i.e. "alternative") food consumption, tend themselves to be privileged, generally forming an upper/middle class and white "monoculture," that often fails to consider the income and racial marginalization within the alternative food movement (Allen, 2010; Anguelovski, 2016; Guthman, 2003, 2008b; Mares & Alkon, 2011; Morales, 2011;

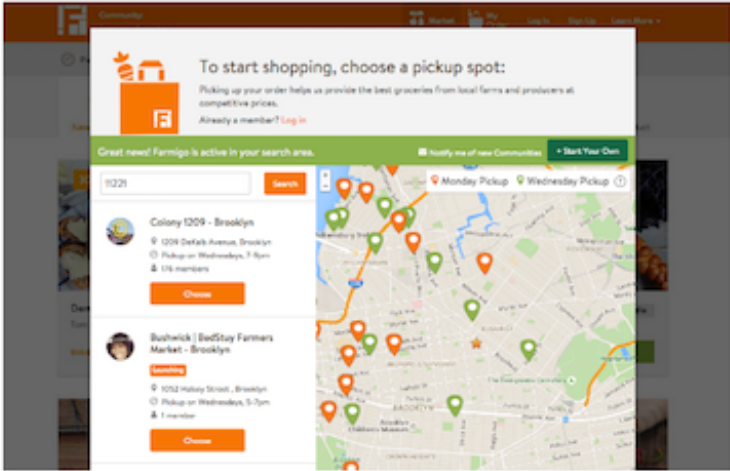
Slocum, 2011). Further, numerous public health studies link conditions of poor food access to negative health outcomes including higher rates of morbidity and mortality, as primarily impacting lower income and racial or ethnic minority groups (Walker et al., 2010).

Figure 4.9: Farmigo Order Sites Website FAQ (accessed June 22, 2016)

We currently have pick-up sites in New York, New Jersey, Northern California, and are in the process of expanding to Seattle - Tacoma! To find a pick-up location near you, please navigate to [our homepage](#) and type in your zip-code. You will then see our Community maps page which looks similarly to the screenshot below.

This page shows you all of the Communities in your area and provides more information such as the pick-up day, location, and, whether or not the Community is private or public.

For more information on private and public Communities and how to sign-up, please [click here](#).



The screenshot shows the Farmigo website interface. At the top, there is a navigation bar with 'Community' selected. Below it, a white box contains the text: 'To start shopping, choose a pickup spot: Picking up your order helps us provide the best groceries from local farms and producers at competitive prices. Already a member? [Log in](#)'. Below this is a green banner that says 'Great news! Farmigo is active in your search area.' and 'Notify me of new Communities' with a '+ Start Your Own' button. A search bar contains the zip code '11221'. To the right is a map with several orange location pins. Below the map is a list of two communities: 'Colony 1209 - Brooklyn' with address '1209 DeKalb Avenue, Brooklyn', pickup on Wednesdays 7-8pm, and 116 members; and 'Bushwick | BedStuy Farmers Market - Brooklyn' with address '1012 Halsey Street, Brooklyn', pickup on Wednesdays 5-7pm, and 1 member. Each community has a 'Choose' button.

*Please note that we are currently in the process of expanding to Seattle - Tacoma. We therefore do not have all of our pick-up sites fully launched yet. Please [click here](#) to see what it means to join a launching Community.

Simultaneously, research demonstrates that unequal access to digital technologies (and to the creation and use of content within digital space) *also disproportionately impacts* lower income groups and communities of color (Ash et al., 2015; Gilbert, 2010; Gilbert & Masucci, 2011; Gonzales, 2016). Aspects of this “digital divide” include limited access to the internet and to digital technologies, inequalities in digital proficiencies, as well as the perpetuation of raced and classed content within digital space. Further, just as limited food access is linked to poor health outcomes, studies show that the “digital divide” perpetuates existing inequalities as well as creating new ones; negatively impacting access to quality housing, education, employment, entrepreneurship, and health (Gilbert, 2010; Gilbert et al., 2008; Gonzales, 2016; Robinson et al., 2015; Warf, 2013).

Scholars of digital inequalities have argued that “the digital divide is a serious obstacle to upwards social mobility, enhancing the vulnerability of long-disenfranchised

populations” (Warf, 2013, p. 2). Further, digital divide scholars push for the inclusion of digital inequalities within equity conversations broadly, arguing that, “digital inequality deserves a place alongside more traditional forms of inequality in the twenty-first century pantheon of inequalities... It is increasingly clear that individuals’ digital engagements and digital capital play key roles in a range of outcomes, from academic performance to labor market success to entrepreneurship to health services uptake,” (Robinson et al., 2015, p. 570). As our digital technologies become more deeply embedded within essential social and economic functions, scholars continue to expand their understandings of the implications of the “digital divide.” Research has yet to be conducted, however, on the implications for inequities in food access as the online grocery market grows, though this research would clearly provide valuable insight.

Based on this case study analysis, I argue that, without careful attention and course correction, the hybridity of the tech-AFN perpetuates inequalities in a compounded fashion, in which the color-blindness of the alternative food movement’s failure to include lower income and communities of color meets and propels the racial and class inequalities of the digital divide through the creation of exclusive online food retail communities and raced and classed zones of alternative food distribution. In her research on the exclusion and displacement caused in lower income and racial diverse neighborhoods by higher-end supermarket chains, Anguelovski coins the term “supermarket greenlining,” (2016). According to Anguelovski, “supermarket greenlining” creates “new socio-spatial patterns and experiences of environmental inequality and exclusion, transforming amenities for vulnerable traditional residents,” (Anguelovski, 2016, p. 11). The “supermarket greenlining” concept is easily expanded to the digital space of the online tech-AFN marketplace, particularly when the entrance into online ordering is accessible only with the “correct” input of residential proximity. Additionally, an entire food chain “greenline” might be drawn for the tech-AFN, connecting only the most privileged consumers to alternative food markets through a privatized network that simultaneously reinforces inequalities across both physical and digital space.

A metaphor: Cities with large tech industries in the US, such as San Francisco and Seattle, have developed a network of privatized shuttle buses to transport tech industry employees across urban space. These tech-driven private transport systems have received criticism over their perpetuation of tech-driven urban inequalities (Florida & Mellander, 2016). Indeed, these privatized shuttle systems tend to be more accurate and more comfortable than public transit, and further, for the tech-employees (the only ones entitled to use them) these shuttles are “free.” Imagine an overlay of food distribution networks, much like the private transit systems described above, in which only specific communities of people – those living or working in the wealthier “in-network” physical locations, and those with existing financial and digital privilege – have access to higher quality and more nutritious foods, while communities who cannot access the financial, locational, or digital requirements are barred access. These “greenlined” food distribution networks already exist, and, without equity-directed intervention, and with the continued promotion and financing of the tech-focused tech-

AFN hybrid, they will continue to grow. Thus, the implementation and adoption of the tech-AFN adds complexity to issues of both food access and digital inequalities.

A prominent critique of AFNs is that they “operate more like niche markets for middle class white consumers rather than presenting a transformative politics open to all,” (Wilson, 2013, p. 722). While potentially being *exclusive* spaces, AFNs may also operate as spaces that reinforce the institutionalization of cultural capital and class-based “lifestyle” food choices, or *habitus*, that reinforces class and social status (Bourdieu, 1984, 1986; Johnston, 2007; Zimmerman, 2015). Building on Bourdieu’s theories of multiple forms of capital and the perpetuation of class, the outcome of “food greenlining” within the tech-AFN (particularly within the Farmigo model) reinforces social capital within networks that are simultaneously based in food and technology access, as well as along lines of geography and class. While upscale grocery markets such as Whole Foods and alternative markets such as coops and farmers’ markets may too be alienating and exclusive (Anguelovski, 2015; Zitcer, 2015), they provide opportunities for non-elite consumers to participate in elite consumption spaces (Johnston & Szabo, 2010). In contrast, the tech-AFN presents a *closed market space* in which consumers without the trifecta of social capital mentioned above (food, tech, and place), not to mention the financial means, are not only unwelcome, but face clear barriers to entry.⁵

4.2.2: About “Access”

“I think that using the term 'food access' for Farmigo was always a mistake. We were not. Maybe at some point that would be something, but 'food access' already exists as an entity that's agreed upon. Or, somewhat agreed upon. And it doesn't mean what we - it doesn't mean selling \$7 cheese. I am fortunate and able to buy those foods, and that's not food access.” (CA04)

Perhaps the most controversial issue for the Farmigo staff regarding Farmigo’s role in the “food movement” revolved around the term “food access.” The Farmigo vision, sold to investors, staff and consumers alike, was that the Farmigo model would increase access to fresh, healthy, and locally-produced foods for everyone. In fact, this theme of a “better system for all” was integral to the official company mission: *To create a food system that's better for everyone, from farmers to eaters.* However, as demonstrated above, the Farmigo model was clearly *not* designed to improve access to fresh and locally-produced foods for everyone, but rather to improve alternative “food access” to both broad regions and specific communities that had a high existing degree of digital, cultural, social and economic capital.

One interviewee discussed her disappointment about the company’s shutdown, and her struggle to find a replacement in her personal grocery shopping for the type of food she had been buying through Farmigo. Her story is representative of the type of

⁵ Note that at the time of Farmigo’s operation, EBT was not available for use in online food purchases in any state, providing an additional barrier to entry for all EBT consumers.

“food access” that Farmigo’s model had been filling. She explained that, *“I was excited about, kind of an alternative way to access really yummy and thoughtfully-produced food. And I think that still remains, especially since Farmigo is no longer in my life, and [so now] I am... patronizing this CSA-type thing that's much less organized with much less choice... And I miss [Farmigo] constantly, a lot, because the truth is... going to the Farmers' Market first thing on Saturday morning is not always my priority, although having that kind of food in my life is really important to me. I can't always make it happen. So, I think the fact that this type of service was existing in this middle ground of convenient and accessible, thoughtfully produced food, was really, really exciting to me,”* (NY07). This person is Farmigo’s ideal customer; someone who wants this “CSA-type thing” but does want to prioritize going to the farmers’ market in-person. For her, this online market model provided previously unavailable alternative “food access.”

In contrast, food access as scholars and activists understand the term, implies the availability and affordability to both produce and to consume healthy and nutritious foods (Anderson & Cook, 1999; Heynen, Kurtz, & Trauger, 2012). The Farmigo model was never designed to address food access in this more commonly used sense. Unfortunately, different understandings around the use of this word “access” led to tensions both internally, within staff who were unhappy in their roles thinking they had joined an access-based organization, and also externally, with potential Organizers who responded to the company’s advertisements with hopes that their involvement would improve their access to food. One former employee who worked in the early stages of customer outreach in California described her engagement with potential Organizers in the quote below. Her story encapsulates the difference between the type of “food access” mentioned by the New York interviewee above (the increased purchasing availability of alternative foods), and as it is generally understood in the food space (the ability to attain food).

“I had some experiences [with Farmigo] that were the most disheartening and sad thing, with potential Organizers, because we used to advertise - We were advertising, like, ‘Get free groceries!’ or ‘70% off your groceries!’ Which I thought was so fraudulent and unethical. And so I had these people who were there because they thought this was a way to get free groceries. I literally once went to an apartment where the woman had no furniture - it was like a bed in the living room, and I sat on the one chair, and it was like, it was heartbreaking. It was horrible! ... For me, that my worst, that one meeting. Oakland is a really poor city and she contacted us because she thought it was a way to access free groceries. And [another employee in New York] had multiple meetings like that a week. I don't know, it was horrible.” (CA05)

Through my own experiences working within the company, it seems clear to me that the error of language here was an accident of ignorance, and was not a mal-intentioned or co-optive tactic by company leadership. In fact, in the time that I was employed by Farmigo, the company’s CEO spent a great deal of energy advocating for the acceptance of EBT for online food purchases, an activity directly in line with traditional “food access” goals. In many ways, Farmigo’s error in language here is inline with many AFN

food movement efforts that mistakenly conflate the short supply chains of local food distribution with social equity or food justice (Cadieux & Slocum, 2015). The language Farmigo used was entirely driven by strategic marketing and retail goals. Yet, accidental or not, and commonly confused or not, it is important to question the implications of using food access and food justice language (ie “better for everyone”) within an elitist and exclusive food chain. A great deal of research and publication about the food movement focuses on whether and if food justice should be producer or consumer-driven. Little attention is given, however, to the role of the *distribution system itself* in driving (or diluting) food justice goals.

Perhaps it is outside the scope of the food distribution company, or the tech-AFN, to address large and systemic food justice goals. However, in theory the online market model *can* address real food access limitations, by bringing nutritious foods to food desert areas with limited existing food market options and/or to populations with limited mobility or transportation resources. In fact, from this theoretical perspective the online market model, including the tech-AFN, could be an ideal approach to address food access concerns *if* it is developed in partnership with, by, and for, the communities whom it is intended to serve. Thus, a tech-AFN model that is driven by, and funded for, food-justice rather than tech-growth goals, and with the partnership of government organizations, could potentially disrupt the status quo and in fact enhance food access by changing how food is marketed and sold. The tools exist, as shown here.

A crucial distinction to draw is that food access is not equivalent to food affordability. Because the industrial food model does not account for the external costs of environmental health, labor justice or animal welfare, food made within the industrial model is cheaper to produce and therefore also cheaper to sell. Without financial subsidies or practices that undercut the costs of food producers, any AFN models (including the tech-AFN) cannot compete with industrial food prices, thus transferring the cost of alternative food production to the consumer. The internal disconnect within Farmigo over the language of “food access” likely stemmed from the lack of understanding across the Farmigo staff about the price differentials between conventionally and alternatively-produced foods. There were ongoing educational efforts in the company to explain, both to the staff and to the customers, *why* Farmigo’s food cost so much more than the conventional food items found in mainstream grocery stores. Even with the most efficiently organized producer-to-consumer delivery logistics, and even without the costs of the physical grocery store space and the food waste of disposable displays, the tech-AFN simply cannot compete with the conventional industrial food model in terms of product pricing. Thus, unless there is a shift or change in national agricultural subsidy policies, while the tech-AFN may indeed be able to improve food access, on its own it will not be able to adjust or to address issues of food affordability.

"I didn't know much about food, I loved cooking and baking, and I loved going to the farmers' market. We got a CSA at home. So I had some idea of what it was to shop locally. And I knew that shopping at the farmers' market felt good.... But I also knew that it was really expensive. I have two small boys. We don't - we're

squarely middle class people, we don't have a ton of extra income. So, I was really interested in how somebody could possibly make a system that is a little bit more accessible to people like me. And being a part of that was really appealing and really exciting. We always want to eat better, we always want to do better. But we just can't afford it. Sometimes you buy a five-dollar chicken from the grocery store because it's a five-dollar chicken, and you have to block out of your head what happens to that chicken. And it's a horrible decision that you have to make, but when we're selling \$30 chickens, and you have an electric bill you have to pay, that's the reality of the situation." (WA06)

4.2.3: Race, Class and Gender Roles in the Tech-AFN

"Maybe there were two people, tops, of color working for [Farmigo], and that's something that I really felt bad about on a regular basis too." (WA07)

"It's also a very male dominated world, when I started in Farmigo I was the only woman in the office ... from when I started until we hired an intern four or five months later." (CA05)

Alternative Food Networks across the country are predominantly created, promoted, and supported by white people through a “normalized,” and therefore racialized, discourse that alternative food equals “good” food (Agyeman & McEntee, 2014; Alkon, 2014; Guthman, 2008b; Slocum, 2011). Because of this racial hegemony the whitened discourse and practice of AFNs is often invisible, leading to a food distribution system that both produces and also reinforces racism and racist practices (Alkon, 2014; Slocum, 2011). Simultaneously, the tech industry is also well known for being overwhelmingly white, both from the development side as well as for targeted digital tech users (Schwanen, Kwan, & Ren, 2014; Warf, 2001, 2013).

As a tech-AFN hybrid, Farmigo was culpable of entrenched whiteness both as a tech company and as an AFN. The majority of Farmigo’s full-time employees were white. The majority of Farmigo’s food producers were white. While the details of customer demographics are unknown, most Farmigo Organizers included photographs of themselves on their marketplace sites, and, based on these images, the majority of Farmigo’s Organizers also appeared to be white. Certainly in the Seattle-region, where I was based, the great majority of Farmigo’s Organizers were white people. However, there was little (if any) discussion within the company about race in the food movement, nor was there a strong effort to promote a more racially diverse staff or consumer base. All staff recruiting material included standard HR language about welcoming applications from diverse populations, and the photographs chosen to represent the company on the website and other avenues of marketing, displayed a degree of racial diversity that was not representative of the organization as a whole. So, there was an *awareness* of the lack of diversity within the company, but there was no *active engagement* to encourage or to improve racial diversity for Farmigo’s staff, producers, or its consumer base.

The gender differences at Farmigo were more subtle. The alternative food movement tends to be female-dominated, while in the tech industry men outnumber women as tech developers, designers and entrepreneurs (Robinson et al., 2015; Shields, 2015). While there was gender diversity within the Farmigo staff body as a whole, gender diversity was skewed by leadership role. Both of Farmigo's co-founders were men and, in March 2016, men held four out of the six leadership positions (in addition to the two co-founders). Further, as of March 2016, women filled only six out of seventeen management positions (those staff who had other staff members reporting to them). In contrast, *all* of the full-time lowest level positions at that time (the least paid and farthest from management or leadership roles, including the field organizers, office coordinators, and interns) were filled by women. Therefore, while there may have been a roughly equivalent quantity of men and women working at the company, the leadership and management roles were disproportionately dominated by men. This means that internal *decision-making* was primarily male-dominated and that the company operated within a male-dominated power structure. Notably, the majority of Farmigo's Organizers (unpaid, brand ambassador, site pickup host volunteers), those spreading the Farmigo message to the consumer base, were also women.

Class is a more challenging demographic to ascertain without definitive data, and I chose not to ask personal questions such as class identity in my employee interviews. I do know that all of Farmigo's former staff members were college-educated, however, and displayed a high degree of economic, social and cultural capital. As mentioned previously, the majority of Farmigo Organizers and customers were geographically clustered in high-income neighborhoods, likely placing them in the middle or upper class. The class identities of Farmigo's producers are unknown, and in general they comprised a mix of inherited family businesses and individual entrepreneurs.

The vast majority of Farmigo's Organizers were women with young children, a population group deliberately and specifically targeted by the company to fill this role. While there were some small financial perks to participating as a Farmigo Organizer, the position was primarily that of a volunteer. Several Farmigo staff members interviewed in this research expressed ethical concerns about the degree of labor expected by the company's model from unpaid organizers. For example:

[AM: Do you think the community pickup site is viable?] "No, I don't. Unless you're paying the Organizers. ... We basically found these unpaid laborers... volunteers, who gave up a lot of time... And we asked a lot of our Organizers. And we didn't support them with the actual goals that they would need. ... And we pretty much refused to invest in marketing because [we] thought that our organizers were pretty much all the marketing that we needed, and that it really could work like a political organizing model. Which is crazy in a for-profit world! It just does not compute. Organizing is great for some idea, or some person, or some activist cause not associated with profit. Maybe in some way - but you're not asking people to just pay. You're asking people to mobilize. ... And something about it always felt kind of off to me and not quite ethical in every way." (CA05)

[AM: Do you think the community pickup model is a viable one?] "No. Absolutely not. Because, again, all the responsibility is falling on one person, who's not really getting that much merit for their work, and is getting pushed by the program to sell." (CA03)

In many ways, the scenario of women engaged in the tech-AFN with little to no formal compensation is mirrored in traditional AFN models. Food scholars have noted that many traditional AFNs rely on physically and temporally demanding labor from food producers that is often not adequately compensated (Allen, 2010; Bruce & Castellano, 2016). Similarly, scholars have recently noted the less-oft cited reliance of AFNs on the low or unpaid labor of women to support food distribution and retail efforts, without generally providing adequate compensation (Bruce & Castellano, 2016; Trauger, 2004). Further, the burden of ethical consumption in general falls disproportionately on women, and particularly mothers, aiming to meet neoliberal expectations on maternal social and environmental responsibility (Cairns, Johnston, & MacKendrick, 2013).

There are several implications to the gendered roles of low and unpaid labor in the distribution of the tech-AFN model. One implication that is distinct from the traditional AFN is the gender inequalities inherent to low and unpaid female labor in distribution roles in contrast to the highly compensated labor of tech management and leadership, held primarily by male employees. Similarly, given the time demands and scheduling involved in participating in the tech-AFN, the women who took on Organizing leadership roles were generally not the primary financial earners in their households. The implication of this demographic distinction is that participation in an Organizing role in the case study company required the privilege of having either flexible scheduling or participating in a household that does not necessitate dual earners. The equity implications of these barriers to participation, particularly in a model that is spatially contingent on networking within the small-scale of the local neighborhood or community are obvious: families that do not have the time or financial flexibility to participate in this model will likely not have the opportunity to fully participate or to provide a pickup location in their neighborhood. This participation barrier comes in addition to the digital and geographic limitations (see the previous section) along with the higher prices of tech-AFN food products.

A powerful example of equity concerns regarding Farmigo's pickup model occurred in the school sites. A high percentage of Farmigo's pickup communities were run in elementary schools and served to both inform families within the school system about food and nutrition, as well as functioning as a fundraiser for the school (10% of the gross of each week's order was returned to the school as a fundraising donation). On its surface, the school community model is a value-add for both the company and for the school. For Farmigo, by tapping into school communities they access pre-made email lists and other open communication channels for marketing purposes. For the school community, the Farmigo pickup provides a gateway for increased communication about food and nutrition (themes that many schools are currently working to engage with but tend not to have within official curriculums),

simultaneously, the Farmigo pickup provides fundraising for school projects such as school gardens, etc. In this model, however, the children of the parents (particularly women) who have the flexibility and time to host the Farmigo pickup in the school benefit doubly from having Farmigo there. In contrast, the schools that do not have parents with the flexibility to host Farmigo pickup sites cannot engage in the tech-AFN service, and cannot raise funds through that route, though those schools are likely to be the ones most in need of additional resources and increased food and nutrition educational opportunities. Further, similar to the targeted outreach for Farmigo's Organizers, the company's targeted outreach for School sites was based on similar income-based metrics, focusing solely on schools in higher income areas within each operating region.

Critiques of gender inequalities in AFNs have noted that employment constraints and daycare demands serve as barriers to some women's engagement with the AFN, and thus in the opportunities for AFNs to expand in the "sphere of consumption," (Bruce & Castellano, 2016). The same is true in the tech-AFN model. Efforts to grow AFNs tend to focus on market-based solutions; however, there is a need for increased attention to the gendered role of unpaid labor in AFNs broadly, and in tech-AFNs in particular, due to the intersectional gender inequalities of the tech industry. While the implementation of organizing in the community pickup model may well serve the food movement in terms of consumer mobilization and education, the reliance on unpaid labor in the community pickup model also limits the model's expansion within fields of existing privilege, such as in the schools example mentioned above, potentially doing a *disservice* to the food movements ultimate long-term goals of inclusion and equity.

In this case study, the meeting place of the predominantly white and upper/middle class AFN and the predominantly white, upper/middle class, and male tech industry compounded to create a model that was predominantly white, predominantly upper and middle class, and primarily male-dominated. Further, this model functioned within a white, upper class, and male framework and served primarily a white, upper class, and female clientele, relying heavily on the largely low or unpaid labor of women. Given that factors of race, gender and class are socially constructed, mutually constituted, and intersectional (Gilbert, 2010), the creation of a raced, classed, and gendered tech-AFN model serves not only to reinforce the power structures within the alternative food movement and the technology industry, but also instills and solidifies these power structures within the hybrid model itself. While the tech-AFN may intend to disrupt the corporate food regime, disruption that follows the same power structures that it seeks to disrupt will make little progress towards goals of change.

4.3: Information and Relationships in Tech-AFN Market Spaces

A major difference between the tech-AFN and the traditional AFN model is the opportunity for increased information flow in digital space. In the previous section I review one example of the impacts of this increased information flow in online community building, through the Organizer Facebook Groups, and implications for civic engagement and activism in the food movement. In this section I explore the ways

in which digital information flows in the tech-AFN impacts consumers' understandings of, and relationships to, alternative food producers. First, I analyze the ways in which alternative food producers were viewed and understood in by the case study staff and Organizers, in which a mission to "support" alternative producers was identified while at the same time a condescending and patronizing voice and tone was often used to discuss them. Here I also review the perception of the "good" alternative food producer as promoted by the case study, and contrast these perceptions to the statistical reality of the demographics of small-scale and alternative food producers in one specific case study operating region. Second, I discuss the relationships created between alternative producers and consumers through the digital information flows of the tech-AFN, noting in particular the concerns of situating knowledge expertise within a market platform.

Due to the limitations of completing this research in a timely fashion, this project does not include the voices or perspective of the alternative producers sourcing the products for the tech-AFN. Incorporating the producers' perspectives on the tech-AFN remains an opportunity for valuable future research. For now, I extend my institutional ethnography of the tech-AFN case study here by identifying the ways in which the tech-AFN model forms and disseminates a particular notion of who the alternative producer is and "should" be, and some subsequent implications for the alternative food movement and for alternative food consumers.

4.3.1: Supporting or Tokenizing the Alternative Food Producer?

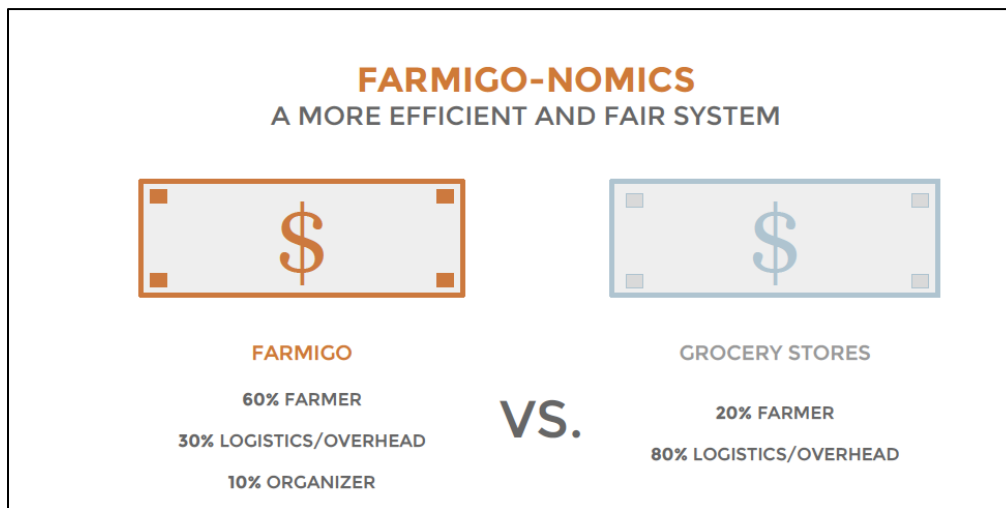
*"Farmigo's role in feeling like we really were lifting up this local food system and we have to - we were required to - take on that extra burden. Like, we want to pay [producers] first and foremost, and that means that our prices are going to be higher. But that's really hard on the demand side, to try to turn around and sell."
(WA04)*

The producers who sourced Farmigo's marketplace were all previously engaged in at least one existing AFN prior to Farmigo's arrival. These producers continued to market their products through traditional AFNs while also selling through Farmigo. There is no question that the arrival of the tech-AFN in Farmigo's operating regions impacted local AFN producers, regardless of whether they choose to participate in the model (or were *chosen to* participate), or whether they did not. Some alternative food producers felt that the arrival of the tech-AFN was confusing to customers, harmful to existing business practices, and overall damaging to their market share (Moskin, 2016). Yet, others were eager to join and increase their product sales through the new market space offered in the tech-AFN model. Similarly to the shifts for consumers in the tech-AFN, the introduction of the digital marketplace for producers means that they are further removed from their customers than they are in traditional AFN models, such as farmers' markets, where they may be meeting and interacting directly with the consumers who are buying and eating their products.

There are several implications for AFN producers entering the tech-AFN marketplace. At a Farmigo event designed to provide a face-to-face opportunity for Farmigo’s producers and consumers, a local blueberry producer spoke passionately about his appreciation for the Farmigo model and about not having to waste staff time or food resources on maintaining a farmers’ market booth while still having access to a farmers’ market-inclined customer base. Notably, many of the producers sourcing with Farmigo were not generating a high percentage of their income through the Farmigo marketplace, but rather were investing in the tech-AFN model in the hopes that the market would grow and increase consumer demand for their products in the future.

The pricing arrangements between Farmigo and regional producers was complex and also changed over time. Farmigo took a 40% share of the market price of all items, providing 60% to the producers (see *Figure 4.10* below). In contrast, at a mainstream grocery store producers are likely to receive only 20% of the market price for their items. Producers selling through traditional AFNs, such as CSAs or farmers’ markets, likely receives all of the proceeds of their product sales, less the cost of a participation or booth fee. As noted above, however, producers selling at a farmers’ market must spend time and energy operating their booth and often have wasted produce due to the need to create a visually-pleasing display. Producers sourcing through a CSA don't have the same demands on them as in a farmers’ market, but are required to conduct or to pay for the administrative tasks of operating the CSA program. Therefore, in some ways Farmigo’s payment structure provided the most lucrative market option to many alternative food producers in Farmigo’s operating regions.

Figure 4.10: Farmigo Producer Payments (Internal Farmigo Marketing Materials)



Farmigo ran a “just-in-time” market model in which customer orders were aggregated weekly and delivered to producers, who harvested or slaughtered products to meet that week’s specific order, resulting in a low-waste and maximally fresh market. In reality, the market window was too short for a true “just-in-time” model to function properly. Instead, Farmigo staff would estimate the orders in advance, and often the orders would come in high or low (leading either to excess food taken home by

warehouse staff or donated to local food banks, or to an absence of food resulting in customer “shorts” that had to be financially compensated for). Initially, Farmigo based its pricing on the producer’s suggestions for the market price of their product. Over time, however, Farmigo began to renegotiate pricing agreements with all producers in order to create a marketplace that they felt was more in-line with customer purchasing habits (in other words, to make prices more competitive or affordable). For some producers, this re-negotiation of pricing actually led to higher consumer orders and ultimately higher profit for those producers overall. For others, the re-negotiation ultimately priced their products lower than they felt was an appropriate value, and they discontinued their Farmigo contracts.

Though Farmigo did not reach the market potential that many of its producers (and its investors and employees and customers) hoped that it would, it did provide a market platform for many alternative producers for a number of years. Farmigo’s marketplace promoted some producer brands in ways that were maintained after Farmigo closed, in that the consumer social media space was filled with questions and answers on how and where to find specific Farmigo products. Yet, the *process* of the Farmigo shut down demonstrated the company’s positioning clearly within the tech frame of the tech-AFN hybrid model (see *Chapter Three* for more information about the hybrid divide). Farmigo’s closure occurred with very little notice to anyone, including staff, customers, and producers. Farmigo closed the West Coast Seattle and San Francisco area offices on Thursday, June 16, 2016. West Coast staff leadership were informed of the closure one week in advance, and the majority of staff were informed that day. Farmigo’s West Coast customers were told of the company’s closure the following day via an email letting them know that there would be no order window for that weekend (orders were open from Thursday through Sunday for a Wednesday delivery). Similarly, producers were notified of the company’s closure early the following week, and told that there were no orders for that week or for the foreseeable future. Presumably, the closure process in the New York region one month later unfolded similarly.

Arguably, the implications of the company’s closure for its consumers were the most minor, and though many may have been disappointed, none were reliant on Farmigo for food security. Farmigo staff lost their jobs, and thus their source of income, but all full-time staff were eligible for unemployment benefits, providing at least a partial safety net in their financial planning (note that this was not the case for the part-time and low-paid warehouse employees, who were given one week’s notice and one week’s additional pay, but were not eligible for unemployment). Therefore, the largest impact of Farmigo’s abrupt closure arguably fell on the producers, who had been seeding and harvesting their yield in advance based on assumptions of sales through Farmigo’s marketplace. The season timing was also unfortunately, the company’s abrupt closure in June and July meant that many agricultural producers had planted crops based on calculations of selling a portion of their produce in Farmigo’s summer and fall markets. In another example, a fishing boat returned to port with a full catch of fish intended for Farmigo’s marketplace, only to find that the company was closed substantially after the fact. Farmigo’s abrupt closure process is typical of a tech startup operation (see

Chapter Three), but is atypical for most AFN producers, who operate on a seasonal harvest schedule; many of whom were literally left in the lurch.⁶

Alongside the impact of the arrival and departure of the tech-AFN on existing AFN producers, are the differences for AFN producers in working within a digital marketplace. Though most AFN producers are rurally located, there is a notable lack of data on the financial impact of AFNs on rural development (Dixon & Richards, 2016; Marsden et al., 2001). While national data shows increasing rates of urban AFN market spaces, it is unclear if or how the growing quantity of markets translates to greater support for AFN producers (Jarosz, 2008). Alternative food producers practice ecological farming methods that promote environmental sustainability and soil regeneration, yet, much of the labor costs of promoting regenerative agriculture is uncompensated (Bruce & Castellano, 2016). In addition to the high percentages and marketplace platform for food retail, Farmigo provided small-scale producers with marketing support including high-quality images of their products and brand, and text around their “producer story.”

Support around marketing is no small provision to small-scale food producers who often do not have large marketing budgets or professional marketing skills. In many ways, technical assistance on marketing tools and techniques appears to be an undervalued need for AFN producers. Indeed, research on AFN producers nationwide finds that marketing practices serve as a major barrier and labor drain for AFN producers (Bruce & Castellano, 2016). This data is corroborated by the experience of Farmigo’s producers, many of whom did not have marketing experience or support. A Farmigo employee responsible for regional marketing efforts explained it this way:

"You have the big corporations who have money to spend on things like marketing and design. But these small producers don't have the money to do it, and they're not going to be able to hire a photographer at an \$800/day rate to come take pictures of all their stuff... So our system not only gave them the platform, but gave them the marketing tools. I've had so many requests for images now that we've shut down. And how do we teach people that?" (WA06)

Yet, despite Farmigo’s marketing support and the high rate provided to producers, arguably the company *needed* to demonstrate producer support in order to make its mission-driven perspective known. In many ways, alongside the grocery products that the company was selling, it was also selling the producers’ stories to sell its products. Arguably, the 60-cents-on-the-dollar producer payment setup was as valuable to Farmigo’s story and selling points as it was to supplying high returns to producers. When asked what they liked best or appreciated most about the company, most employees noted that they valued supporting local and small-scale food producers. This too, was a major marketing point for Farmigo. However, in many ways the producers’ stories seemed tokenized by the Farmigo’s staff, as quaint, or sweet, or

⁶ Regional orders were provided to producers on a weekly basis based on customer orders for that week, so contracts were not violated. However, many of the producers supplying to Farmigo were doing so in hope of the company’s growth and continued increase in orders.

picture-perfect. Few of the Farmigo employees interviewed had personal farming of food production experience, and most did not refer to the specific forms of food production practiced by AFN producers. Rather, producers were generally described as being “good” people who were doing the “right” thing. For example:

"I think that what we were doing was good for farmers in some sense. First of all, we chose good farmers to work with, they were doing good things. They were sustainable, local, all these things that are for the most part good. So... our sourcing was great, I'll say that." (CA05)

"For me though, it was knowledge about the food system and helping our farmers and local food producers, that was very heartening. That is why I liked Farmigo, because I was having contact with a goat cheese farmer who lived in Twisp and has an awesome beard, and who smells like weed, but I'm, like, so happy that he's working with us, to give him added revenue and the ability to live his life how he wants to live. Also, amazing food." (WA09)

"I think we actually did a really good job of getting incredible food. We had incredible farmer partners who cared passionately about the product they were creating. Really creative, delicious, high-powered food producers." (NY07)

This lack of clarity and oversimplification of Farmigo’s producer production practices, framed simply as “right” and “good” was matched by Farmigo’s marketing language, highlighting the “best” products made by the “best” producers, but glossing over the ways in which these categorizations were developed or defined. Producers were invited to contract with Farmigo initially based on personal connections and networks, and building on existing AFNs in each region. Thus, and importantly, distinctions around what made “good” producers were often self-designed and self-perpetuated.

In turn, there was also a strong sentiment among the former staff that the high rate of return to producers led (at least in part) to Farmigo’s downfall. Though the financial cause of Farmigo’s closure relates more closely to the failure to secure an additional funding round, many staff members (across all sectors) felt that the company’s high rate of return to producers did a disservice to the company’s financial bottom line. As noted in the section above, industrial agriculture and food production does not pay for the externalized health and environmental costs of industrial food. For AFNs, including the tech-AFN, the producer, the consumer, or the distributor absorbs the additional costs of sustainable ethical food production practices. For Farmigo, in aiming to supply the producer with fair compensation (whether for ethical or for commercial means, or both), the additional cost of AFN production was taken on by the distributor (the company) and by the consumer; resulting in higher market prices and lower (or sometimes negative) profitability margins overall.

Finally, in understanding Farmigo’s relationship with its producers, it is important to understand the process around which producers were selected for inclusion in the Farmigo marketplace. Because the *producer story* was so influential in Farmigo’s

marketing the producers chosen for marketplace participation fit within a subscribed producer paradigm: that of the idyllic rural farming family (see *Figure 4.11* in the following section). While a complete analysis of regional AFN producers incorporated and excluded from the Farmigo marketplace is outside of the scope of this study, a visual analysis of the producers featured in the market site appear to be majority Caucasian and majority heterosexual families. Notably, these are the images of the “good” producer that the company chose to source from and to highlight in their marketing materials. Ultimately, this perception of “good” producers is inaccurate, as alternative food producers take many forms, many of whom are women operating in non-heteronormative family structures (Jarosz, 2011).

Farmigo’s sourcing process functioned primarily through internal networks and referrals, such that producers introduced to Farmigo’s sourcing staff were generally pre-vetted by existing Farmigo producers, creating an “insider” network of producers. Further, the producers included in Farmigo’s marketplace tended to be technologically savvy and highly educated, a demographic trend further distinguishing Farmigo’s “ideal” producer. The equity implications of producer inclusion in the marketplace based on the marketability of their look and their “story,” their existing connections to specific regional AFN producer networks, and technological backgrounds, are clear.

"You'll notice also that the producers for Farmigo, they're very liberal and they're very educated. They're not that kind of producer, I would say. I think they're totally on board with anything that can help them, any [technological] system. They're very intellectual." (NY04)

4.3.2: Know Your Farmer: Digital Pathways of Information and Connection

"These communities are created because farmers' markets are places where producers, consumers, and neighbors come together to talk about food, connect with each other over products grown from the surrounding landscape, and delight in the experience of the market." (Aucoin & Fry, 2015, p. 74)

"The biggest thing that I realized from when I was working at the farmers' market: at Farmigo a lot of the conversations I had with people were reactionary. Kind of like, this happened, I already got something, and something's wrong with it. Working at the farmers' market, people approach you before they buy something. So, there's a lot more engaging with them before they're a consumer. So, that's just a really different relationship. ... If you're at the market you're already there, you'll just ask someone, say, about kale, 'hey, how do you cook this?' If you're online, you're not going to ask someone, you're just going to look it up. You're already online, so you have that at your disposal. ... I definitely prefer the farmers' market direct person to person side." (CA10)

As with traditional AFN consumers, a major difference for AFN producers in the tech-AFN market is that they lose direct in-person connection and communication with customers. Much of the research on the benefits of AFNs highlights the community-

building aspect of traditional AFN market spaces such as farmers' markets and cooperative grocery stores. Though Farmigo's consumers had access to closed social media groups for digital online communication, Farmigo's producers did not have access to a similar digital producer community, nor to any consumer group spaces. Traditional AFN producers generate trust through community and connection built on a two-way flow of information. Research on traditional AFN market spaces finds that increased communication between producers and consumers builds consumer trust in food quality, increases consumer information on alternative production practices, and builds community relations (Eden et al., 2008; Garner, 2015). In the tech-AFN, however, information flows uni-directionally: from the producer, to the distributor and tech-AFN marketplace, and ultimately to the consumer. Thus it is important to question the role of digital communication pathways in generating consumer trust and in building consumer education.

In traditional grocery stores consumers collect information about food products primarily from standardized labels letting them know the nutrition information, and occasional additional information such as country of origin, USDA organic, non-GMO, fair trade, etc. Alternative food markets depend more highly on consumer knowledge regarding product differentiation without the use of standardized labels (Pottinger, 2013), created primarily through bi-directional producer-consumer communication pathways and through relationship and community building. Farmigo worked hard to create the *feeling* of the producer-consumer relationship and information/ education flow on the marketplace website. However, ultimately producer knowledge and information was censored by the company in order to enhance marketing goals.

Each Farmigo producer had their own profile page that included photographs of them and their families, photographs of their farms, and links to all of their products sourced in the Farmigo marketplace (see examples in *Figure 4.11-4.14* below). In addition, Farmigo created its own glossary of alternative food production terms and definitions, assigning them as appropriate to its producers and explaining them in detail to consumers (see *Figure 4.15*). Farmigo also had active staff across the country responding to consumer emails and online chats with any questions about producer practices or product information. For those Farmigo offices connected to the distribution warehouse (Seattle, WA and San Francisco, CA) the staff often interacted with producers when they came for weekly or bi-weekly product drop-off, allowing the Farmigo staff to add that "personal" touch about producers in their communication with consumers (note that the warehouse and office spaces in New York City were separated, such that in the New York office and headquarters this was not the case).

Figures 4.11 – 4.14: Select Producer Profiles (WA Farmigo Marketplace, accessed 06.22.16)



Bluebird Grain Farms

Certified Organic

Practices: Heirloom varieties, sustainable farming methods, traditional methods, small-batch. Bluebird Grain Farms is a plow-to-package operation, which means they do everything themselves. Their goal is to cultivate and mill the most irresistible, nutrient-rich grain they can...and to leave the land even healthier than when they started. For their family and their staff, great taste, real nutrition, and a thriving countryside go hand in hand – you just don't get one without the rest. They're extremely dedicated to soil health, feed, resting, and otherwise caring for their land however and whenever they can. They grow

their grains in the Upper Methow Valley, and irrigate them with pure mountain water straight from the Pasayten Wilderness. They cultivate their own seeds to keep their heirloom varieties strong and healthy. Their grains are conditioned in custom-built, old-world wooden granaries, the traditional way to circumvent issues like mold and rot – so they never have to use chemicals to control them, the way other companies do. Everything is milled to order, so it's as fresh as possible. Trust us when we say you'll taste the difference in every bite.



Bow Hill Blueberries

Certified Organic

Location
Bow, WA

Producer Story

Established in 1947, Bow Hill Blueberries is the site of the oldest family-run blueberry farm in Skagit Valley. The Soltes family took over the farm in 2011, and have focused on rejuvenating the soil and transitioning the historic fields to Certified Organic. The farm specializes in heirloom berries and has over 4500

bushes that are a combination of Rubel, Stanley, Jersey, and Blue Crop.

The entire family is involved in the farm: Harley is the chief farmer and researcher, working in the blueberry fields most days; Susan is in charge of sales, marketing and product development; daughter Amelia designs the farm's branding and packaging; and son Wylie works in the packing shed during the summer. Year-round, a small staff of part-time employees help in the fields, create products, work in the store, and pitch in with art projects. During the harvest, as many as 25 kids and adults hand-harvest and pack 60,000 pounds of berries. Locals have been picking the fields since the farm first began, and the Solte family is proud to continue creating harvest memories and connections to farm-fresh food.

Food and farming is more than a livelihood—it's their passion.



Jones Family Farms

Location
Lopez Island, WA

Producer story

Jones Family Farms has its roots in commercial fishing – in 2001, Nick was given a free boat from a friend, leased a permit, and began living out his dream of operating his own boat in Puget Sound. He sold fish straight off the boat to friends and neighbors, and eventually to stores and restaurants. It wasn't long before Sara came on board; the pair continued fishing themselves until 2009, when they sold their permit, and made the switch to working with a network of

friends to provide top quality Northwest seafood to their customers. During this time they also began developing their livestock operation, and were committed to a "whole system" approach to farming. They added pasture-raised pigs and grass-fed goats, and a poultry flock too. In 2005 they purchased a small shellfish farm, as part of their ongoing efforts to expand the selection of amazing food they offer and diversify in the interest of sustainability.

Practices

Grass Fed, Pastured Livestock, No Hormones or Antibiotics, Wild-Caught Fish



Botany Bay Farms

Pastured

Location Brush Prairie, WA

Producer story

The Sturtevant Family owns and operates Botany Bay Farm in beautiful Brush Prairie, WA. They weren't always a farming family, and once lived in the city caring for just one lone parakeet. In 2008, after seeing the film *Food, Inc.*, they learned about pasture-based, rotational grazing and began learning more about holistic, family-friendly farming methods. The thought of the family working together to produce their own nutritious food enticed them to make a huge life change. In 2011, they said goodbye to their quarter-acre city lot and hello to a whole new world filled with lots of unknowns and LOTS of hard work. Five years later, after much trial and error, the family now farms on 50 acres just north of the Portland/Vancouver area. There they produce something incredibly rare: pastured meats from animals raised without soy or any genetically modified organisms.

The Sturtevants rotationally graze their animals on pastures and in forest lands that are never sprayed with chemicals. Every day they move the animals — and their waterers, shelters, portable fences and feed — to fresh, clean pasture. This takes a lot of work, but they believe it's worth the effort for producing healthy animals that are dense in nutrients, and don't have a need for antibiotics.

Rotational grazing is also good for the soil: as the animals systematically eat their way across the landscape, they give back to the land by leaving rich deposits of natural, chemical-free fertilizer. The fertilizer encourages insects and earthworms, and after a few days, the chickens enjoy a foraged feast that sanitizes and revives the pastures. This creates a wonderful cycle of the land improving the animal, and the animal improving the land.

Chickens and pigs require supplementation to their natural diet, and are fed a variety of locally-sourced, GMO-free whole grains that are ground daily on their own farm. They never receive any soy. Chickens are humanely processed at their own state-inspected processing facility.

The Sturtevant family loves making life better — for their family, the animals, the land, and the community. It's a win-win, for both farmers and eaters!



Alpenfire Orchards

Location

Port Townsend, WA

Producer story

Nancy and Steve "Bear" Bishop discovered hard cider during visits to Canada in the 1970s, and toyed with the idea of making it themselves someday. The cider spark stayed with them for over 30 years; in 2001, they got serious about it and traveled to some of Europe's cider centers to learn and see first hand how it was done. As they worked through how to build their own cider production, they learned that not all apples are created equal. For quality cider apples, ones loaded with tannins and complex flavors (and without all the pesticides and chemicals used in conventional orchards), they'd have to work to build up their own orchard.

The task seemed daunting, but the stars aligned. Shortly after returning to the U.S., they had the opportunity to take a class taught by English Cider Master Peter Mitchell via Washington State University. As soon as the class was over, they ordered their cider variety apple trees and began the task of growing their own cider orchard. The trees were planted in 2003, and by 2008, they had their first harvest.

The orchard became certified organic in 2005, and in 2009 they became certified as organic processors. Alpenfire holds the distinction of being the first organic cider in Washington State, and their no-spray, synthetic-free orchards are a haven for a wide variety of wildlife. The cider varieties that they grow seem to love the low nitrogen soil of their orchard, and so far they have seen almost no disease or insect damage.

Together with their crew, Nancy and Bear are currently producing about seven organic flavored vinegars, and eight different ciders.

Certifications

Certified Organic

Figure 4.15: Farmigo-Specific Labeling (Internal Farmigo Marketing Materials)



The goal of the producer profiles “*was really to give people a sense of where their food was coming from and to create a sense of trust. I think that trust really is the thread that connects everything. And to be entertained, somewhat. It's a chance to learn who these people are as fellow humans. And not everybody really has interesting stories to share, but, when they did have more to say that really brought the human side to it,*” (WA06). For many Farmigo employees, the producer profiles also served as a food system education platform, allowing for the knowledge transfer of alternative food production information within the consumer market space in such a way that it is not usually accessed or available. In serving as the educational platform, and in assigning self-made labels to the alternative food producers within its marketplace, Farmigo arguably aimed to situate itself as a food system knowledge “expert.”

Although the internal food systems knowledge at Farmigo was limited (see *Chapter Three*), much of the alternative food production information presented through Farmigo came directly from Farmigo’s food producers themselves, situating Farmigo as the AFN producer practice knowledge “expert” and information curator. As we know, knowledge becomes legitimated through the approval of the expert (Demeritt, 2000; Thrift et al., 1995; Whatmore, 2009) and knowledge is transformed as it moves along these knowledge pathways (Livingstone, 2010). In Farmigo’s digital market space, knowledge flows from multiple alternative food producers was aggregated and disseminated by inexpert staff through a platform positioning itself in a state of expertise. The implications of this knowledge pathway creation and knowledge situating are two-fold. One, there is room for error in the transformation of knowledge from producer to digital tech-AFN platform, leading to potential *misinformation* on specific producers alternative food practices. Two, the aggregation of AFN producer knowledge on the tech-AFN platform allows for greater educational reach and, arguably, increased credibility. Thus, though the digital communication pathway in the tech-AFN does not include the bidirectional communication flow of the traditional AFN used to generate trust, the aggregation of the alternative producer knowledge, and dissemination through an “expert” knowledge platform arguably creates trust through increased credibility and increased educational opportunities.

In the aggregation of knowledge towards a platform of “expertise” the selection process of Farmigo’s producers again comes into play (see section 4.2.1 above).

Knowledge is culturally and socially contextual, and demonstrates the context within which it is created. The implications of the tech-AFN serving as the gatekeeper to alternative producer knowledge are that only the information from those producers included in the tech-AFN are included in information aggregation. Further, Farmigo is not positioning itself as a knowledge expert simply to disseminate information, but rather to boost company sales and market growth, the implications of which also impact the knowledge platform. For example, if the company was unable to source from producers practicing a specific alternative method, they might choose not to explain that alternative production method to consumers in case those consumers choose to look elsewhere for that product. When expertise and education are channeled specifically for financial gain, the ethics around these knowledge pathways become questionable. Further, while in traditional AFN models producer-consumer trust is generated around relationship building, in the tech-AFN trust is generated through the “transparency” of information platforms. If these information platforms are skewed towards enhancing corporate profit, true “trust” will not be generated.

4.4: Conclusions for Tech-AFN Consumers

"There's the perspective of what's appealing to the producer, and there's the perspective of what's appealing to the consumer. And sometimes I wonder, are we trying to fix the wrong thing - in San Francisco, access is not the problem, there's an abundance factor. But if we lean out from San Francisco, producers are driving each way, to get to the [city] - what is a financial mecca for farmers, right? Because they can charge really high prices, but they're spending a lot of money. So, is what actually fixes the problem something that actually just supports them in a different way? ... Like, what if we were really allowing farmers to actually spend more time on their farms, rather than traveling to the market." (CA07)

There are multiple implications of the arrival of the tech-AFN to the alternative food space. For consumers, there are implications on buying trends, product accessibility, and increased community building and civic engagement. For producers, there are implications for marketing support and for the dissemination of “expert” food system knowledge. This chapter places the consumer in the research by investigating the impacts of the tech-AFN on consumers transitioning from traditional AFN markets to the tech-AFN model. Situating the digital market place within the ethical consumption and political engagement debate, it appears that through digital community building the tech-AFN provides increased opportunities for consumers to engage in political or social action related to the alternative food movement. In contrast, the tech-AFN positions producers in a space of expertise while simultaneously gate-keeping the perceptions of “good” producers and products sold in their market space.

The original driver that propelled the initiation of this research pertained to heightened concerns over inequalities in participation for tech-AFN consumers. Traditional AFNs are known to primarily serve white and middle class consumers, and are often critiqued as being invisibly raced and classed. Simultaneously, there are similar concerns about power structures and exclusions for raced or classed

consumers in digital spaces, as the content of the internet itself is often created for a privileged raced and classed user, and inequalities in online spaces reinforce social, economic, and political inequalities in the physical world. Unsurprisingly, this research demonstrated that when AFNs met digital space through the creation of the tech-AFN these existing inequalities did not cancel each other out, but rather, were *amplified*.

The amplification of inequalities within the tech-AFN in this case study was demonstrated in three distinct ways. The first was the confluence of physical and digital access, or the exclusion of “entering through the map.” This exclusion limits access to tech-AFN participation for consumers without high economic capital, represented through both digital access and physical location, and demonstrates again that the case study company goals were driven by VC expectations and were not intended to address food access concerns. The second exclusion was demonstrated through the entrenched whiteness of the case study company, seen in both the employees and customers, and mirroring the racial hegemony of the alternative food and tech worlds. Importantly in this case, there was also no apparent awareness of racial exclusions, nor any intention to address or to acknowledge the lack of racial diversity across the company. Finally, the third exclusion was demonstrated through the hierarchy of the gendered power structure, in which the traditional male-dominated leadership in the tech industry was combined with a reliance on the low or unpaid labor of women in traditional AFNs. This gendered power imbalance was echoed in both the staff structure and in the company’s community pick-up design.

Ultimately, the tech-AFN appears to be neither solely beneficial nor solely detrimental to the goals of the alternative food movement. Rather it appears to leverage certain benefits while inhibiting or eliminating others. In many ways the tech-AFN is positioned in a space of opportunity and possibility to grow support existing regional AFN networks into the tech-era. For example, the tech-AFN can bridge gaps in market access for consumers, and in transportation and market logistics for producers. The tech-AFN may also mobilize ethical consumers for political action, and thus could help to disseminate broad food system knowledge and education beyond traditional AFN boundaries. Yet, race, class and access concerns, and the gendered labor roles of consumers discussed above, *must* be addressed if the tech-AFN intends to align with the food justice goals inherent to the food movement broadly.

Chapter Five: Regional Differences - Grounding the “Local” in Place

“There is likely no other resource required for human survival that is as culturally bound yet so dependent upon material realities of the natural environment.”
(Agyeman & McEntee, 2014, p. 217)

Food and place are deeply interconnected in a multitude of ways; culturally, physically, ecologically, and politically. In this chapter I ground the case study in place, analyzing the company’s operations in the three metropolitan regions in which it functioned. I ground this place-based analysis *regionally*. Across the literature, language on regional food systems and networks are used interchangeably with the terms “local” and “alternative” food systems and networks (Kneafsey, 2010). Within Geography, region and place are in fact often used interchangeably, with the notion of “region” itself implying a broad range of spaces and scales (Paasi, 2004). For the purposes of this research, the “region” is defined through the case study company’s own definition, as the space incorporating both the fields of *food delivery and consumption* (spanning the metropolitan urban core and the suburban periphery), as well as the surrounding areas of “local” *food production* (including urban food production and small-scale food processing, as well as rural mid-scale food production and processing within a boundary of 250 miles from each regional warehouse). The three regions examined in this case study center around the metropolitan areas of New York City, San Francisco, and Seattle.

A region, however, is more than simply a spatial boundary measure. Proponents of “new regionalism” within Geography frame the regional scale as a space of increased democratic decision-making that has greater independent economic and political power within an increasingly-globalizing world (Harrison, 2013; Kneafsey, 2010). In this framing, “new regionalism” reflects regions as being “constituted by and constitutive of social life, relations and identity,” (Paasi, 2002, p. 802). Thus, regional food networks, in particular, may be defined in large part through the relationship of the *actors* involved within the network, broadly incorporating a range of AFNs that includes local food networks, short food supply chains, and even urban agricultural systems within the regional food network umbrella (Kneafsey, 2010). Regional food networks encompass not only agricultural production systems, but also influence factors of regional economic and social viability (Renting, Marsden, & Banks, 2003). Regions are also viewed as spaces of stability within external forces of global change (Feagan, 2007), implicating the region’s valuable position in debates on food security.

Regions play an important role in political mobilization and identity-building (Paasi, 2002), and in place-based identity formation (Feagan, 2007). While evidence suggests that clear geographic differences exist in local and regional cultures and in regional patterns of identity creation and the valuation of wellbeing (Plaut et al., 2012), there is still a notable lack of attention within academic research on the “personality differences” of regions within nation-states (Connelly & Beckie, 2016). As one might expect, each of the three regions analyzed for this research contains unique cultural and historic relationships to food, the alternative food movement, and the technology

industry and the sharing economy. The three regions each also have different growing seasons, different local and state policies around alternative food production and distribution, and a different range of options available for alternative food retail. The three regions also vary in secondary factors that may not be as immediately apparent in influencing the success and viability of AFNs; including factors such as traffic and public transit, urban density, wealth, and community culture and connectivity.

My research employs a “new regional” approach to the tech-AFN analysis, framing regions as both a *designated spatial territory* as well as a *bounded space within which general principals of hegemonic identity* (such as identity, culture, political and economic power, etc.) may be applied (Barnes, 2011; Paasi, 2003, 2009). By closely examining the similarities and differences of each of the three regions in this case study, I draw conclusions about the implications of the characteristics of each region as they relate to the implementation of tech-AFNs, as well as how we might conceptualize similarities and differences across place-based food movements within different regional places. There is enthusiasm within critical food studies, and within the alternative food movement broadly, for a re-regionalization of the food system as an act of activism in opposition to the global-industrial food model (Donald, Gertler, Gray, & Lobao, 2010). Though some scholars do acknowledge that differences in food and agricultural processes occur regionally (Hinrichs, 2016), there exists little in the way of analysis on the differences between the *actors and cultural identities* across various regional food networks. Ultimately, this chapter seeks to trouble the notion that the local scale lacks value to AFNs (Born & Purcell, 2006); and instead situates AFNs, and tech-AFNs in particular, within the ecological, cultural, and political aspects of the region that grounds them *in place*.

In sum, this chapter examines the implementation of the Farmigo model on the regional scale, and explores the VC-driven processes of exporting a place-based model across regions. I first review the different ideologies around food and technology within each of the three case study regions, exploring how regional differences in agricultural history, the culture of food, and the food movement, along with differences in technological innovation and growth, informed the reception of Farmigo’s implementation differently in each place. I then analyze the implications of a noncritical expansion of a corporate model built on place-based assumptions, in this case assumptions derived in the New York region. I argue that differences in density and transportation, as well as differences in regional perceptions and cultural norms, had a large impact on the failure of the Farmigo model’s regional expansion. In the final section of this chapter I advocate for the importance of place in alternative food networks, and particularly for the expansion-seeking tech-AFN. Here I discuss the paradox of attempting to expand “local food systems” across regions through technological means. I examine the place-based aspect of local food consumption, and the spaces in which Farmigo choose *not to* invest in expansion or outreach. Finally, I argue that with the ongoing merger of food and technology we are poised at a pivotal moment at which many different pathways of food system change may unfold.

5.1: Regional Ideologies of Food and Tech

“We did this whole project in the marketing team to try to understand our target market in each region, and they were very different. ... Validity is up for debate. But it seemed that in Seattle, community was a big part of it. San Francisco was all about sustainability, the environment. And New York was much more about the quality of the food. Which is why I think it really worked in New York. Because we did have high quality food, and Farmigo was a relatively easy way to access it. The community factor here [in California] never really resonated with people. Mostly, people just wanted good food and would be happy to take a discount to be a host.” (CA05)

In order to attract and maintain venture capital funds, tech startups are pressured to demonstrate their growth potential through model replicability in new regions, known within the industry as demonstrating the ability to *scale* (see *Chapter Three* for further information on venture capital investment and goals of startup scaling). Farmigo had a unique history in that it evolved somewhat organically in both the New York and San Francisco regions, and thus the launching of Farmigo’s Seattle-area operations was essential in demonstrating the ability of the model to scale (needed to position the company strongly for additional VC funds). While there are certainly some similarities across each of the three regions, each region also has its own unique history of the evolution of its food movement and its tech industry growth, and therefore each region also had a unique culture and receptivity to the introduction of the new tech-AFN hybrid model.

As the foundational location for both the food movement and the rise of the US tech industry, Farmigo fit right in to the culture and ideology of the San Francisco region. As I argue in the following section, Farmigo likely fit in *too well* in California, where the lack of distinction from other tech-AFNs (and the proliferation of AFN market options available) caused the company to blend in, but not to stand out enough to appear meaningful. In contrast, while the Seattle region is home to both a vibrant food movement and tech industry, the two were less coupled in the Seattle area in 2015 and 2016 than they were in San Francisco at that time, thus situating a tech-AFN as more “suspect” to Seattle-based consumers who might otherwise promote AFN food purchasing preferences. Finally, I argue that the New York region on the East Coast is in an earlier stage of *both* the food movement and the adoption of new tech companies, making the tech-AFN model a more novel, and seemingly more valuable, consumer service in the New York region than in either of the regions on the West Coast. Each region’s unique positioning is discussed in further detail in the following sections.

5.1.1: Founded in California: the Hub of Food and Tech

The majority of the new tech-AFN companies are based in the San Francisco area for a good reason; the San Francisco Bay is the founding place of *both* the US alternative food movement and of American technological innovation and corporate tech growth. Often referred to as the nation’s “fruit basket,” California is largest agricultural

producer in the country, growing over two-thirds of all fruits and nuts in the United States, and over one-third of all the country's vegetables (USDA, 2017). Not only is California the largest food producer in the nation, it was also foundational to the food movement. The original Organic Movement of the 1970s was formed in California, led by organizations such as the California Certified Organic Farmers and the Organic Farming Research Foundation (Allen, FitzSimmons, Goodman, & Warner, 2003). The *local food movement* stems from the San Francisco region as well, where famous chefs such as Alice Waters helped to mobilize the sale of locally and organically grown produce, first in their restaurants, and later in health food and cooperative grocery stores (Guthman, 2003). Amongst all of this food, Silicon Valley, arguably the global hub of the technology sector, grew up in farm country just outside of San Francisco (Merchant, 2017). Silicon Valley is not only the global center of the existing technology industry, it is also essential to new technological growth as the source of the *majority of all venture capital funding* worldwide (Kramer & Patrick 2014).

Access to capital investment is essential for new tech startups, especially at their beginning stage or "seed stage" of growth. Successful tech entrepreneurs based in the Silicon Valley area have historically been the primary backers for new tech ventures, leading to the availability of more "seed capital" in Silicon Valley than anywhere else (Haines, 2016). Following the recent trends of tech industries towards urban growth (Rossi & Di Bella, 2017), the city of San Francisco has become the "locational and metaphorical extension of Silicon Valley" and is arguably the "most important city in the world for the location of new technology startup firms," (McNeill, 2016, p. 494). By 2012 the city of San Francisco had surpassed Silicon Valley in the quantity of venture capital investments made, with total investment funds nearing \$7 billion, just under a quarter of all national VC investment made that year (Florida & Mellander, 2016). Today, the rise of social media and smartphone technology "app" opportunities has revolutionized the Bay Area, creating a hub of technological capital, innovation, experimentation, and urban investment (McNeill, 2016). Thus, the greater San Francisco region is now the US center for the promotion and early adoption of new technological products. In addition, the San Francisco Bay Area is over-saturated with local and organic grocery and meal delivery services (Gold, 2016; Mignot, 2015). For Farmigo, this meant that their California client base lived within a revolving door reality of ever-new apps and food delivery models, within which the introduction and closure of a new tech-AFN company was neither particularly notable nor outstanding.

The flood of technological investment into the Bay Area has reshaped its urban space and economy, most notably through dramatic increases in commercial and residential property markets (McNeill, 2016). Yet, within the tech and real estate wealth of the Bay Area, a "foodie" culture of consumers also arose, with consumers willing to pay higher prices for seemingly "higher quality" locally and organically grown foods (Guthman, 2003). The Bay Area region's food culture was further reinforced through the growth of Napa Valley's wine prominence, and the rise of local celebrity chefs, who were an important catalyst in the demand for (and eventual sale of) local and organic products (Guthman, 1998). The roots of San Francisco's foodie culture lies in the simultaneous surge in the 1970s of both organic food production and the "back-to-the-

land” environmental movement that accompanied the resistance to the Vietnam War. Across the region, farms, Universities and community groups began to engage in alternative agriculture as both a lifestyle choice and as a form of activism (Allen et al., 2003). The Bay Area’s resulting food culture, while ostensibly rooted in these activist ideals, has in many ways become an “upscale urban market” in which some ideals are prioritized (primarily environmental values focused on individual health and food safety), while other aspects of food justice (such as labor conditions, hunger or food equity) are markedly less apparent (Guthman, 1998, 2003).

Thus, in many ways San Francisco is uniquely situated to receive and to support the development of new tech-AFNs such as Farmigo. However, as the food and tech hub of the United States, local competition and consumer *expectations* are also higher than in other locations. When asked about place-based differences and the market fit of Farmigo in the Bay area, Californian employees remarked primarily that they felt Farmigo got “lost in the crowd” within the abundance of California’s local and alternative food markets and multiple food delivery options, including markets such as Good Eggs, Mollie Stone’s, Real Food Company, and Rainbow Grocery and meal delivery services such as Bento and Sprig. “*The Bay is just so crowded in general,*” one interviewee told me, “*that we were seen there as just another food delivery startup*” (WA01). When asked if she thought there was a “place for an online farmers’ market in the Bay area?” another interviewee remarked, “*I don't know. Honestly, I don't know. I think that there's so much noise [here]. It's not competition, its just noise*” (CA07).

Farmigo struggled to grow its customer base in the San Francisco region, with growth rates that were consistently lower than the other two regions, and overall order numbers that were soon surpassed by the newer (and smaller) Seattle region. In many ways Farmigo *should* have done well in the Bay Area. As mentioned previously, the region is well primed for strong AFNs and for new tech companies; there is a broad producer and consumer base to draw from, and a wealth of venture capital investment opportunities. So what went wrong for Farmigo in California? It’s possible that the issue was entirely internal. There was high staff turnover in the Farmigo Bay Area office, and resulting errors that led to a lack of customer loyalty and potentially a bad “reputation” among the client base. Yet, part of the high turnover rate came from Farmigo’s headquarters in New York, in which people in positions of leadership, separated by distance, assumed that the company’s failure to grow implied staff failure to do their jobs well. As I argue later in this chapter, some of those place-based assumptions likely reflected more on the failure of the model than on staff work ethic.

When asked directly about their opinions on Farmigo’s failure to take hold in the San Francisco region, many Californian former Farmigo staff members pointed to the tough competition and over-saturation of the existing alternative food market. Their comments included statements such as:

“There's all these meal kits, and now there's a meal kit for every diet. And there's ready-to-cook meals, meals with all the pieces. I don't know how, given all of the offerings and the complexity of all the offerings, I don't know how you - I mean, an

online farmers market should really be, just the products that you get at the farmers market. ... So, how do you offer those things in a way that's appealing to people? Does it have to have the convenience of next day delivery? Does it have to have home delivery? And it seems like it does, right? Because anything that is as taxing as going to the farmers' market, it has to at least be marginally better." (CA07)

"Who is the Farmigo customer? It's all rich white ladies. What?! They already have enough choices. And especially here, we don't need that. ... But in Berkeley, where we were, there are tons of farmers' markets, and you can go to Whole Foods. It's just - we're not offering anything that you can't get anywhere else." (CA06)

The metaphor of “seed money” for startups is apt, as some seeds take root and grow, and others do not. It can be challenging to predict which seedlings will thrive, and often the deciding factor lies in uncontrollable conditions, such as being in the right place at the right moment in time. Farmigo suffered in California because it was seen as just one of many available markets for the type of food that it offered, and just one of the many food delivery options available there. And yet, alongside the internal staffing complications and the high external competition, Farmigo suffered from one other stunting condition: it was not headquartered in San Francisco. The company was based in New York, and operated under a set of New York based assumptions (discussed further in the following chapter section). When asked about their thoughts on why the Farmigo California market failed to grow, *all* Californian employees interviewed listed two reasons: one, intense competition, and two, that California was somehow “different” than New York. Many Californian employees expressed frustration about this second distinction, and what they felt as the failure of the New York office to notice and/or to appreciate it, expressing statements such as:

"California was just harder because it was different, and it took us so long to pick up on that. I mean, I feel like in California people are so much more aware of the importance of buying local because they have the access to it already. And we - I think the turning point in California was that we started to pick up on that difference, and lean into it." (CA02)

Ultimately, in the California Bay Area alternative food is much more integrated within the local lexicon (in many communities) than in the greater New York region. California’s collective identity appears to be more closely tied to food consumption choices than in New York (see the following section on New York’s food and tech culture). There is a higher level of public understanding around the differences in alternative food production, and also a wider array of retail options for alternative foods. There is a high rate (and high turnover) of technology startups, and likely a lower threshold of tolerance for errors in operations due to early stages of operational development. In the cacophony of food and tech options available in the Bay Area, Farmigo, young and still figuring out its true identity, was stunted in its growth by failing to stand out from the crowd.

5.1.2: Transitioning Seattle: Tensions in Tech Growth

" We're a mission-based city, whereas, I don't know as much about New York, and I've spent time there, but you know, it seems a lot more of, either, do your dreams, or do things that you came here to do from somewhere else, or show up and survive and it's that simple. Whereas Seattle's based in super hardcore ideals, of hard work - of idealists with labor movements and protests - and, you know, just - you're talking about a mission and the idealism behind the mission is going to be different wherever you are. If you're not going to understand that, then you're not going to be able to communicate with people in a way that's going to connect with them, you know?" (WA05)

Eight hundred miles North of the San Francisco Bay sits the city of Seattle. Smaller and rainier, Seattle is similar to San Francisco in many ways, but also unique in its history and regional identity. Like San Francisco, the Seattle region is a hub for technology, hosting among others the two major corporate tech giants Microsoft and Amazon. As the tech industry in Seattle has grown, gaps in equity have followed, including housing insecurity for lower income populations who cannot afford the fast and drastic rise in rental and home ownership prices (see *Figure 5.1* below, published in the local *Seattle Stranger* newspaper in 2014 in response to growing housing concerns). As the tech industry grew in the city of Seattle, so too did racial inequality; the city became increasingly white, and racial and ethnic minority populations were squeezed to the city outskirts and outer suburban areas (Morrill, 2008). Gender imbalance in the city also accompanied tech growth, exemplified through gender inequalities within the growing technology workforce (Shields, 2015).

Figure 5.1: Is Amazon the Reason Rents are Going Up? Yes, it Is. (Kiley, 2014)



As a “frontier” region the Seattle area has a historic culture of “freedom, independence, autonomy, and novelty seeking,” a psychologically that is arguably necessary for “harsh condition” survival (Rentfrow, 2010, p. 551). Like San Francisco, the Seattle region was home to a strong environmental movement in the late 1960s and early 1970s, though the focus of Seattle’s environmental movement was more strongly attached to wilderness conservation and outdoor recreation than it was in California. The rise of the major outdoor gear cooperative REI, under the leadership of the well-known mountaineer Jim Whittaker, also helped to shape the Seattle area as an ideal outdoor alternative to “overcrowded” California (Morrill & Sorruners, 2005).

Beginning with Boeing’s entrance into computer systems and telecommunications in the 1960s and 1970s (Mayer, 2013), and then with the major success of Microsoft, by the mid-1990s Seattle had transformed from a “sleepy city” to a global, high-tech, and information-rich metropolitan region, ranking in its digital economy behind only San Francisco and Austin, Texas (Morrill & Sorruners, 2005). The 1994 establishment of the major delivery retailer Amazon propelled a further dramatic growth in both the region’s tech industry and its population (Morrill & Sorruners, 2005). Today, the Seattle area is tied with Austin as being the “second Silicon Valley,” a secondary hub for the tech industry touted as more accessible and more affordable than San Francisco (Vara, 2016). Tech workers are flocking to the city of Seattle in record numbers for the tech sector job opportunities and for the perceived high quality of life (Stewart, 2017).

The influx of tech has changed the demographics of the Seattle region, leading to major gentrification and urbanization. Seattle has transformed from the “fairly egalitarian city” of the 1970s to a “far more unequal” one today, in which the arrival of economic “elites” are displacing the “traditional blue-collar populist Democrats” of the previous era (Morrill & Sorruners, 2005, p. 364). Much like San Francisco’s tech transition, the influx of wealthy tech workers to the Seattle area has led to skyrocketing real estate, the privatization of public spaces, and the continued displacement of lower and middle-income residents, igniting public anger and resentment (Stone, 2017).

Much like the Bay Area of California, there is also a great deal of demand for locally grown organic and artisanal food in Seattle, fueled primarily by young urban and professional households (Jarosz, 2008). The demand for local foods in the Seattle region has grown rapidly, with five times as many farmers markets appearing in the summer seasons now as there were two decades ago (Ostrom & Donovan, 2013). Regional consumer demand for “local” and alternative food in the region is generally driven by progressive goals to support environmental conservation and socially-sustainable food production (Jarosz, 2008). Unlike San Francisco, however, the current alternative food consumer in Seattle tends to be decoupled from the tech industry, and, importantly for Farmigo, appears to be much more skeptical of tech’s encroachment on the region’s space and cultural identity. The Seattle-based Farmigo team found a high level of loyalty from the Seattle consumer base to the existing local food coops and farmers’ markets and a high degree of *distrust* of the company due to a perceived ideological disconnect between the values of the “food movement” and tech-oriented goals.

In their study of backyard chicken owners in the Seattle region, researchers Blecher and Leitner found that urban chicken owners in the Seattle region placed themselves in opposition to the large-scale corporate food industry, desiring higher quality food and transparency of production (Blecha & Leitner, 2014). Farmigo's Seattle-based consumer outreach team encountered many residents with similar concerns about the vulnerabilities of reliance on the corporate food system. Yet, many alternative food consumers in Seattle did not embrace the tech-AFN hybrid model, situating Farmigo in alignment with Seattle's tech growth, and thus *in opposition to* alternative food movement goals. Consumer opposition to the tech industry was expressed repeatedly by Farmigo's former Seattle-based employees, who statements throughout their interviews included the following:

"I was a relative newbie to Seattle when I started this job, so I don't know all of the historical players, and that was probably to my benefit... Farmigo was seen as a Johnny-come-lately to those older guard circles, and since we're a venture-backed firm, our motivations were unclear... Where we saw ourselves as partners and extending the market, they saw us as, like, the new kids on the block coming into their market share." (WA01)

"Especially in a place like Seattle that values authenticity so deeply. That stands out, and people can see that, and they can smell it. And they want something that is true, that is honest. Seattle has a real working base foundation, between, like, loggers and gold diggers and fishermen. It's only recently become a place of business." (WA05)

In addition to facing concerns of distrust as a tech-based industry, concerns that did not seem to be as strong in San Francisco as they were Seattle, Seattle consumers who *did* purchase food from Farmigo often expressed high dissatisfaction with what they saw as the high degree of packaging in their orders. When asked about geographic differences across regions, *all* respondents interviewed who worked with two or more regions raised the issue of packaging in Seattle. Packaging is an important component of grocery delivery, especially when a company is not employing refrigerated trucks, because correct packaging ensures that food is kept cold in transit long enough to meet food safety guidelines. For New York consumers, the degree of packaging that arrived with their delivery did not seem to be a concern, and though there were some complaints in the San Francisco region, the complaints in the Bay Area did not match the degree of dissatisfaction expressed over packaging in Seattle. While there is a great deal of packaging (not to mention energy used in refrigerated transportation) in the transportation of mainstream groceries, that environmental footprint is primarily *invisible* to the consumer. In the direct producer-to-consumer sale of the tech-AFN, however, it is not. The Seattle region's Farmigo customers' distress over the use of packaging materials is consistent with the environmental ideals serving as the driver for much of the local and organic food purchasing in the region. It is possible that for some Seattle-area consumers packaging complaints were financially motivated, as Seattle residents pay fees for household garbage pickup, while residents of New York

City do not. However, as Farmigo was primarily marketed to consumers with a relatively high purchasing price-point (see *Chapter Four*), it is unlikely that financial motivations were the primary driver for all of Seattle's packaging-based complaints.

Thus, similarly to the motivations of the traditional AFN consumers in the Seattle region, most Seattle-based Farmigo consumers were likely to be ideologically motivated. The Seattle area, similarly to the San Francisco region, has a strong supply of local and organic food producers and consumers. Also like San Francisco, Seattle residents tend to have a strong knowledge and understanding of (at least the environmental benefits of) locally and sustainably grown foods. Unlike San Francisco, however, Farmigo in Seattle did not get "lost in the crowd," but rather was viewed as an *outsider*, emblematic of the transformation of the city away from its ideological origins and cultural roots, and rather of the new phase of tech-driven super centers, that, for many alternative food consumers, did not seem to be value-aligned. Thus, Farmigo in Seattle failed to connect to consumers as a mission-aligned partner, and failed to be taken seriously as part of the alternative food movement of the region.

5.1.3: Getting into the Game: New York follows the West

"Tech is just different in New York, and particularly in Brooklyn." [AM: How so?] "I feel like [in New York] its cool and interesting, and its not like those people are necessarily making the most money. Wall Street's making the money, they're the man, tech's not the man ... But its like, people in Finance, if suddenly they were like, I'm going to give you your fruits and vegetables, I think in New York you'd be like, that's so weird!" (CA04)

In May 2017 Quartz Magazine published an article titled *New York's unrealistic dream of rivaling Silicon Valley should end with Etsy's troubles* (Kessler, 2017). The article rails at New York's attempts to position itself in line with Silicon Valley as a hub of technological innovation, noting that while the region does come second in terms of total venture capital raised and the quantity of venture capital deals (see *Figures 5.2 and 5.3* below), the absence of the emergence of a major tech company in New York connotes a failing of the region's ability to mimic Silicon Valley's success. In many ways New York's attempts to join spaces of technological innovation are emblematic of the "urban technological renaissance" growing worldwide, in which urban settings across the globe are seeking (and experiencing) increased economic growth through the shift to urban-based tech startups (Florida & Mellander, 2016; Rossi & Di Bella, 2017).

New York's financial center supports the rise of startup culture through an abundance of available venture capital funds. As an existing active "command center" of the global economy (Warf, 2015), the New York metropolitan area is well positioned to take on the role of the global "informational" tech city, in other words, to be a "technopole" (Rossi & Di Bella, 2017). New York's move toward urban-based tech is directly inline with the urbanization of the startup economy nationally, similar to the Silicon Valley's move into the San Francisco Bay area discussed previously (Florida & Mellander, 2016). Thus, the New York area has the global standing as well as the capital to

support the incubation of new tech industries, and a fast-paced population-base to experiment with them. However, as discussed in the unflattering article mentioned above, the New York region has yet to produce the tech industry “rock star” that will situate it as an equal player in the tech innovation field.

Figure 5.2: Venture Capital Raised in Q4 2016 by Sub-Region (Kessler, 2017)

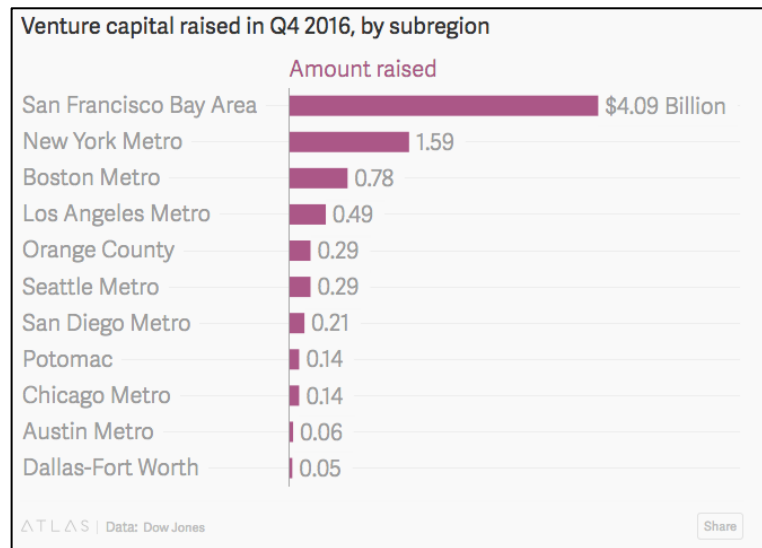
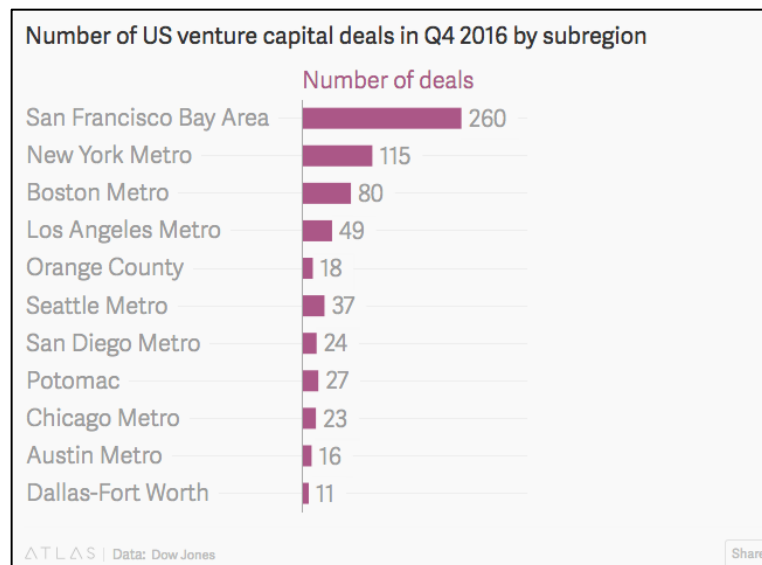


Figure 5.3: Number of US Venture Capital Deals in Q4 2016 by Sub-Region (Kessler, 2017)

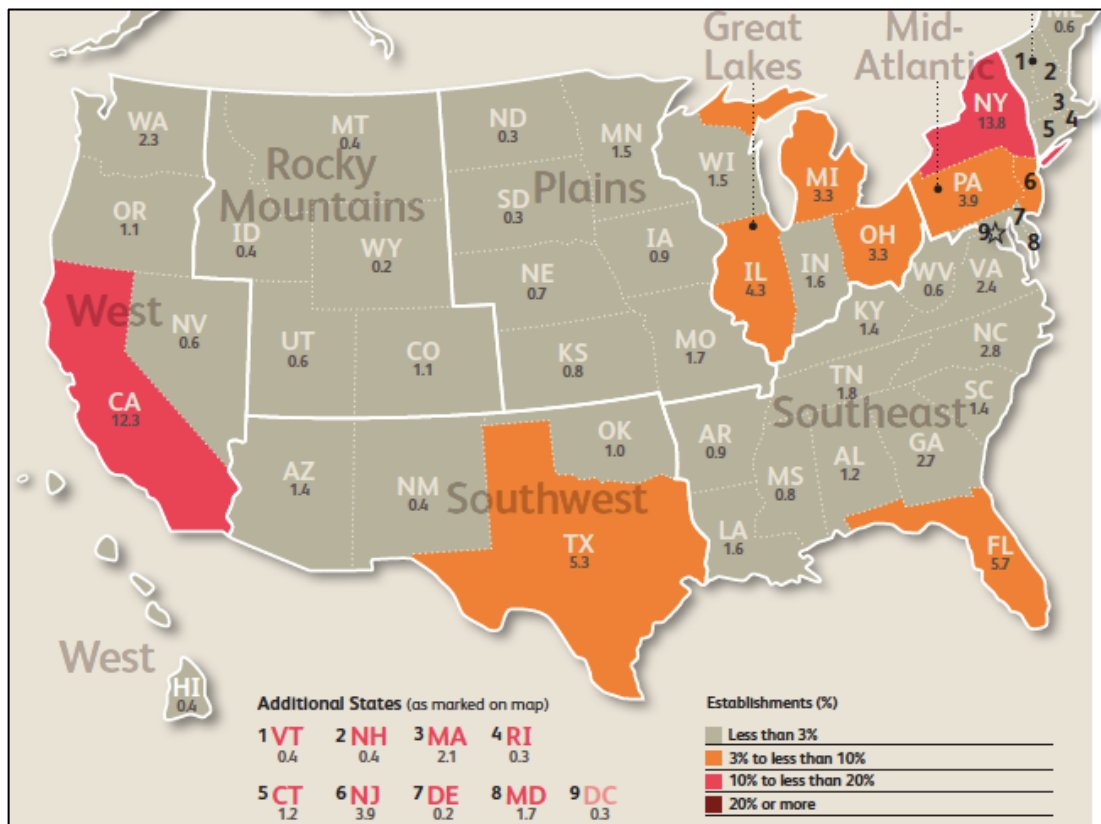


In contrast with the decades-old food movements occurring in the West Coast regions examined in this research, the food movement around New York City is a much more newly “emerging movement” (Freudenberg, McDonough, & Tsui, 2011). Further, while both the San Francisco and Seattle food movements stem from the environmental movements of the 1970s (see previous sections above), the food movement in the New York region appears to be more deeply rooted in a newer food movement wave,

focused mainly on the expansion of urban agriculture and on the promotion of public health due to obesity-related health outcome concerns (Freudenberg et al., 2011; Morgan, 2015; Reynolds, 2015). Led primarily by community groups, nonprofit organizations, and local policy-makers, the New York metropolitan region has only recently joined efforts to promote “locally” and organically-produced food procurement, primarily through an emphasis on farm-to-school meals and education programs (Morgan, 2015; Piccoli & Harris, 2017).

Thus, in many ways the New York region is following the lead of the West Coast in *both* the move towards growing as a hub of technological startup innovation as well as in the growth of its local and alternative food movement. At the same time, New York remains the primary region for the success of online grocery delivery markets (see *Figure 5.4* below), and is the home of the oldest and largest locally-and organically-grown online grocery company, *Fresh Direct*, the second largest grocery delivery company in the US after *PeaPod* (Alvarez, 2016). Based on these facts, the New York region’s relationship as *emergent in both* tech growth and the food movement is arguably not coincidental to the success of local and organic online grocery retail in the region, but, rather, is *conducive* to it.

Figure 5.4: Online Grocery Business Locations 2016 (Alvarez, 2016)



We see the conducive nature of New York’s early stage arrival to food and tech play out in the case study of Farmigo in a very different fashion than the company’s experiences in its satellite offices on the West Coast. First, unlike in San Francisco, where Farmigo

“got lost in the crowd,” at the time of Farmigo’s operations, the New York metropolitan area had minimal alternative options for locally and organically grown food products, fewer year-round farmers’ markets than the West Coast regions, and less availability of local or alternative food at mainstream grocery establishments. In addition, there were fewer food-related startups in New York, positioning Farmigo in New York as a more unique, and thus potentially more valuable, model. Second, whereas in Seattle the tech industry was positioned in opposition to the “social movement” of strengthening alternative food systems, the newness of the food movement in New York meant that tech was not seen as antithetical to the food movement there. Rather, a tech-AFN in New York appeared an obvious solution to the alternative food “access” issue. Thus, in many ways the Farmigo model was arguably a success in the New York region.

5.2: A New York State of Mind

"Each region really needed - or both regions that I was in, New York and California - needed pretty different approaches. Where in New York we got a ton of leads from the Facebook ads, the interest was stronger there, and there was more - I think the challenge there was more - making sure that you're investing your time with the right organizers. I mean, to give you an idea of the differences, in New York the biggest talking point, and what's going to get the most interest, is that fact that we have this marketplace and that there's access to this food. In California the access was there, and the level of interest, it was there, it was just way different. And I think for a long time, California felt like they had it harder, because they felt like so much of the leadership was just in New York, and there was this feeling like, whatever they do in New York can be applied to California, but in California it was just harder." (CA02)

"No city is exactly like New York." (CA08)

The most striking geographic theme throughout all interviews was in regarded to Farmigo employee perceptions about the New York region. When asked about geographic differences across the regions, interviewees based in either California or Washington provided their perspectives *in comparison to* the ways in which their region differed from New York. These comparisons ranged in focus and in scope, including attention to differences in office culture and set-up, to regional culture, urban density and transportation, and to growing seasons and food cultures. In all cases, however, employees from the West Coast regions framed the comparisons of geographic differences of their “home” region in opposition to their observations about the New York region. Though some interviewees noted similarities or differences that they found between the Seattle-Tacoma and California Bay Areas, the majority of geographic attention in the interviews was focused on bi-coastal differences. In contrast, when the New York-based employees were asked about geographic differences, the majority of them focused their replies on observations about their own “home” region of New York, with little attention paid to other areas or to comparisons across regional differences. This place-based interviewee distinction is particularly notable because the individuals interviewed in New York were disproportionately

representative of higher leadership positions within the company, so the scope of their work inevitably included company operations across all three regions, leading to a *higher* likelihood that those individuals would have had more cross-geographic observations than their counterparts on the West Coast whose scope of work trended towards focusing more on their “home” region only.

The disproportionate focus from all interviewees on the New York region likely says less about any East Coast-centricity of tech-AFNs, and more about the organizational structure of the case study company. Farmigo was based in New York, and was created as a New York model, with the assumption that its model rollout and adoption in other regions across the country would be seamless and unproblematic. The satellite regions, the California Bay Area and Seattle-Tacoma corridor, were staffed by employees working primarily within their own “home” region. In contrast, the majority of the company’s headquarter staff (including management, HR, design and graphics, branding, marketing, etc.) were based in the New York office. Thus, not only was the Farmigo model developed in New York under cultural and organizational New York assumptions (reviewed in more depth below), but, in addition, the model was maintained in an organizational hierarchy that was New York-based. The privilege of the New York model and the New York mentality within the organizational hierarchy is demonstrated by the invisibility of cultural and logistical New York-based assumptions by the New York team themselves, and also by the New York employee interviewees’ lack of awareness of the differences occurring across regions.

Regional scale creates its own epistemology, a regionally-based way of knowing and understanding the world, based on existing hegemonic structures and uneven spaces of knowledge production (Paasi, 2004). The New York-centric mentality demonstrated by this case study is a prime example of regional epistemology. As Farmigo exported its model to new regions, the graphics of each area’s online marketplace were updated to display local landmarks – the Golden Gate Bridge in San Francisco, the Space Needle and Mount Rainier in Seattle – and local staff were hired to run the local outreach, procurement, and warehouse distribution and logistics for each region. However, basic assumptions about how the model would function were presumed to be the same across place. In reality, there proved to be consequential place-based differences that ultimately harmed the successful expansion of the company in these new regions. This section explores the tensions in the tech-AFN between designing a regionally based food distribution model, and attempting to scale that regional model for venture capitalist growth. In this section I examine the ways in which differences across regions impacted the expansion of the Farmigo model in three different ways. First, I discuss regional differences in cultural norms of “collective” community behavior, specifically noting differences in approaches to sales. Second, I explore regional differences in alternative food access and education, including the availability of alternative foods and differences in customer expectations and education about the food movement and alternative food products. Finally, I examine regional differences in transportation and density, and the implications that these differences had on local food distribution logistics. Ultimately, this section analyzes the implications of the export of East Coast-based local food system assumptions to West Coast regions.

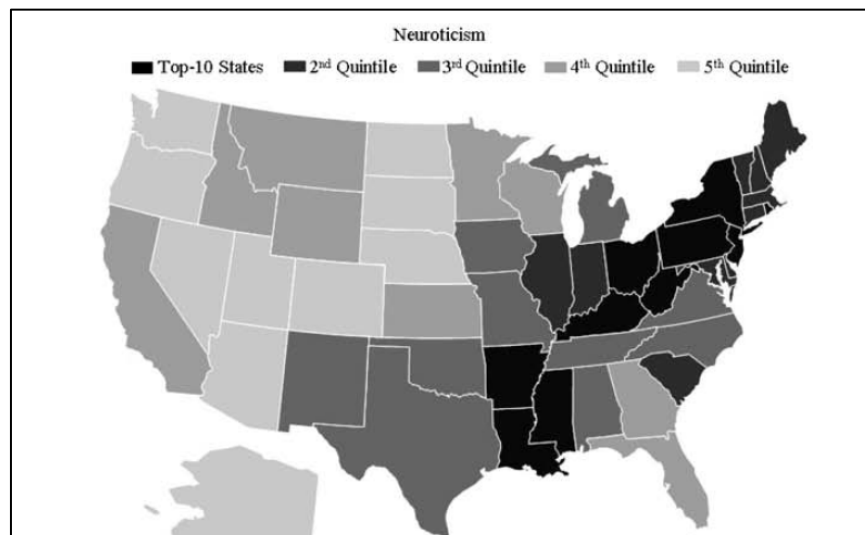
5.2.1: "Community" Cultures

"Packaging was definitely a contention, environmentally, it was a real point of concern. You know, we transitioned to different icepacks [and people in California were unhappy]... In New York you'll walk around and there's trash everywhere, it's easy to overlook an icepack change, whereas here, and in Seattle too, there's a real different approach to packaging in West Coast communities." (CA03)

"In New York you have to do a little more curatorial work. You have to be their eyes and ears in the food system. And you have to really promote that whole system, whereas here [in California], people already have a lot of buy-in of that system, buy-in for organic and sustainable. There you have to kind of convince people to buy in to that - here the buy-in is to convince people who the producers are, what they're doing, how they're different, where it's grown. But the whole sort of buy-in that organic is good for you is much less of a struggle here."(CA10)

There is strong evidence indicating that the attitudes, values, and behaviors of Americans across the United States are regionally clustered (Rentfrow, 2010). Regional identity and personality distinctions stem from a mix of three factors: migration, socialization, and ecology. One, people tend to migrate to places where their personalities and self-views can be expressed, causing certain personality traits to become more prevalent in some regions over others. Two, socialization leads to public conformation of expressions and behaviors such that individuals tend to "acquire" personality traits that are regionally valued. Three, evidence suggests that aspects of the physical environment, such as precipitation or temperature, can impact the ways that people interact and the socialization of groups. (Rentfrow, 2010)

Figure 5.5: Neuroticism by State (Rentfrow, 2010)



This regional clustering of "cultural" identities and behaviors is often expressed in place-based stereotypes. For example, newcomers to Seattle complain about

experiencing the ‘Seattle-freeze,’ the city’s widespread antisocial mentality or “tendency to ‘cocoon’” (Sommerfeld, 2005). San Francisco, in contrast, is seen as a city of creativity and freedom, with a population that values “uniqueness, and a comparatively loose contingency between what is expected by others and one’s own behavior,” (Plaut et al., 2012, p. 3). New Yorkers, in turn, are considered to be “fast-paced” and “neurotic,” (see *Figure 5.5* above) and are viewed as being more culturally pushy and blunt (Rentfrow, 2010).

Like many tech startups of the current era, Farmigo was built to capitalize on the rise of the “sharing economy” facilitated by new technologies (discussed further in *Chapter Three*). Modern examples of the “sharing economy” include car and ride sharing companies such as Uber and Lyft, and home sharing with AirBnb. Farmigo’s “sharing space” was the grocery store building itself, in that foods purchased in an online marketplace were delivered to community pickup spots and were promoted by “brand ambassadors” (known as “Organizers”) who offered up their home, or school, or business, for grocery drop-off and pickup in exchange for a small fee or for a dramatic discount in their own grocery purchase (for more information about the Farmigo’s community pickup model see *Chapter Four*). As with many components of the Farmigo model, the New York-focused Organizer approach did not fare as well in “antisocial” Seattle or in “independent” San Francisco as it did in the New York region. This is not to say that some sort of grocery-pickup sharing space could not be broadly adopted (car and house sharing have taken off widely across the world despite many place-based cultural differences), but rather, that the *engagement* model for a new social phenomenon must be tailored to the cultural and social conventions the regional market that it is attempting to enter.

One of Farmigo’s primary struggles had to do with tactics employed to promote the adoption of the model in the non-New York regions. Interviewee CA03 was a Farmigo employee who was asked to relocate from New York to California in order to help grow the San Francisco Farmigo market, her role was customer-facing and thus she experienced outreach for Farmigo in two different regions. In discussing her engagement process with community Organizers in both New York and California, she spoke with me about the place-based differences in customer engagement that she found. “*In California it was really emphasizing the local, REALLY emphasizing the community building. Cuz, you know, you have to kind of cater to that soft, more like, inclusive side. New Yorkers don't really care - like, 'I don't have to be friends with my neighbors, I have my friends. It's cool that you're trying to do that, but I'm going to just get my groceries and leave'*” (CA03, capitalized text to note original emphasis).

Importantly, *local food communities* themselves are also not uniform across major metropolitan areas, but rather are culturally and socially regionally distinct. In their work, researchers Connelly and Beckie emphasize the importance of in-depth analysis and investment in social infrastructure for the scaling of local food initiatives (2016). Locally-focused food initiatives across the board tend to devalue social infrastructure (such as culture, relationships, and networks) and the socio-political movements supporting the markets for local/alternative food products (Connelly & Beckie, 2016).

Similarly, Haines argues for the value of ethnographic research for early stage startups in order to “enable a greater localized understanding of the context or problem space in which a product is being created and provide deeper data to base decisions on than just click-metrics,” (Haines, 2016, p. 176). To date there has been neither pressure nor encouragement within tech-AFNs to conduct qualitative ethnographic analysis in their attempts to scale to new regions. However, as demonstrated in this section, a lack of awareness of or attention to place-based differences and cultural nuances around food, technology, and community, can and do drastically impact a new tech-AFN model’s ability to attract and engage new customers in distinct regions.

5.2.2: Alternative Food Education and Access

"New York is just a weird beast unto itself, to me, because it's like, Farmigo was actually providing something that you couldn't get elsewhere. The quality, especially the quality of produce, is not what people could get at Fairway or any of these other markets where they were going. Whereas in San Francisco, you can go anywhere. Even the produce at Whole Foods is sometimes better than what we sold." (CA07)

When asked about geographic differences across regions, the most frequently cited claim of former Farmigo employees related to differences in access to alternative food retail options. The vast majority of West Coast-based employees interviewed (those based in California and Washington), mentioned in their interviews that they did not feel that Farmigo provided a value-add in terms of market niche. The reasons for this were primarily because the products available through Farmigo’s online marketplace were equally accessible at other local grocery markets, coops, and farmers’ markets in the area. Further, for the West Coast employees, Farmigo’s lag-time and limited order window for purchase and pickup made it an inconvenient option. In contrast, Farmigo’s New York marketplace was seen to be supplying a product unattainable elsewhere, decreasing the perceived burden of the logistics’ ordering structure.⁷

To date, literature on the US local and alternative food movements has focused on the differences *within* the food movement, highlighting racial and class discrepancies among the local/alternative and food justice movements. While these insights are essential in understanding the different aspects of the food movement and issues of equity in white and upper and middle-class oriented consumer-based food movements (discussed further in *Chapter Four*), the focus on the differences within and across *types* of food movements in the US the literature presents and *overwhelmingly uniform picture of the US food movement* across major metropolitan regions across the nation (Born & Purcell, 2006; DeLind, 2011; Holt-Gimenez & Wang, 2011; Mares & Alkon,

⁷ National grocery store chains such as Whole Foods that arguably sell local and alternative products do exist in all the regions reviewed in this research. However, the items available within the Whole Foods across regions are not uniform. In fact, multiple interviewees specifically mentioned seeking Farmigo items at their local Whole Foods and finding them easily in California but not in New York. Differences in the quality and abundance of produce available at farmers’ markets across the East and West coast was also mentioned frequently.

2011; A. Starr, 2010). In other words, discourse on AFNs lacks place-based comparative analyses. While much food studies literature certainly includes place-specific case study research, there is little attention to the implications of differing stages of the local/alternative food movement *in place* across sites, and particularly as comparisons. In this chapter I argue that the lack of place-based alternative food system comparative analyses, together with accompanying assumptions of national food movement uniformity, creates an inaccurate portrayal of the alternative food movement. Further, I posit that, due to VC-investment pressure to replicate a uniform model design across place (see *Chapter Three*), assumptions about uniform food regions and AFNs will ultimately be damaging to the long-term expansion and survival of the tech-AFN hybrid model.

Data from this research demonstrates a distinct difference in consumer access to local/alternative food products at mainstream markets and at farmers' markets in the New York metropolitan region in comparison to the San Francisco Bay and Greater Seattle areas. Some of the differences in consumer access to alternative food products in the metropolitan regions across the East and West Coasts stems from the different stages of the regions in the food movement. The New York region is in a much earlier stage of the food movement; there is less consumer knowledge about the industrial and alternative food systems, less demand for local/alternatively produced foods, and limited access to local and alternative food markets. Throughout the research process, many former interviewees discussed what they viewed as the lack of accessible retail outlets for alternative food products in New York, in direct comparison to the *over-saturation* of alternative food retail opportunities in the Bay Area.

"Going to Whole Foods in New York City is literally the worst experience of a lifetime!" (AM: Why's that?) "Between the hours of 5 and 8:30 it's like, a zoo, you can not even - certain times of the day I would rather spend more money and just go to the grocery store seven blocks away, because I would PAY to not be in Whole Foods." (NY06)

"People in the Bay Area have more options, I feel like there're more farmers' markets touching more areas. I feel like even the smaller bodega corner store is even going to have some organic produce. Think of it this way, California feeds twenty-five percent of the whole country. We have such a glut of food, that it's not that hard to get in a state that produces it all." (CA10)

"So, in New York/New Jersey they were really selling a solution, or creating a solution to a problem. People did not have access to that kind of food. In the Bay Area, we have access to that kind of food through many different kinds of streams, through Full Harvest, or grocery stores, and we have people who have been so involved." (CA04)

"In New York it might not be a big hassle for you to walk down the block and pick up some food from the apartment building down the street from you. But if you're having to drive two or three miles to go to your neighborhood pickup spot it looks

really different. And if there's a wealth of really good food options in those same two or three miles - if they're PCCs or other amazing grocery stores, we don't have a shortage of those out here [in Seattle]. So, why would you order on-line and then have to drive a couple of miles, if you could just drive a couple of miles and get it right away?" (WA01)

In addition to increased market access to local/alternative foods on the West Coast, Farmigo's West Coast target customer base (those with both the inclination and economic ability to purchase higher-priced food items) had base-level requirements for "local and organic" alternative foods were substantially higher than those on the East Coast. The difference in the depth of consumer food knowledge on the East and West Coasts was also embodied within the Farmigo employees themselves across regions. Many (though not all) of the West Coast-based employees discussed the different food movements (for example, local food versus food justice) and were able to identify the differences between industrial and small-scale organic food production with nuance. For example, interviewee CA10's discussion of organics below:

"I think that people [in San Francisco]... are well aware of the avenues that they can take - they know where their farmers' markets are. And I think that people here have more of an offensive stance - 'I'm already doing it, I'm already buying organic'... and not really looking at the finer points of what the difference between farmers' for organic means... Organic with a capital "O" or Local with a capital "L," and we did a good job of explaining that, but it's not really high on the list when people are going to buy something." (CA10)

In contrast, the New York employees tended to focus on taste over values. For them, the market appeal to their customer base (and often for themselves too), was the high quality of the food sold in the New York Farmigo marketplace, and how "delicious" it was. While there was language used around "supporting farmers," the primary focus for the New Yorker employees was on obtaining the high quality food product, rather than participating in an alternative *food system*. For example, for interviewee NY04 (below), the value of Farmigo's food was its taste. For him, this "real food" product tasted better than conventional food. In his perspective, the traction of Farmigo's food in the New York marketplace had little to do with any food movement, but rather with the appeal of higher quality and subsequently better tasting, food products. He said:

"New Yorkers are also just very different from Seattle-ites in terms of grocery buying... Well, they just don't give a shit about organic, or local, or anything. They want quality... Somebody in the Bay Area, if you feed them a blueberry that's local or organic or whatever, they'd be like, 'Oh, this is awesome.' Or maybe it's just mundane. But, if you feed that blueberry to a New Yorker, their mind is BLOWN! Like, they don't have that - WE don't have that. NOT HERE!" (NY04, text in all caps to indicate original emphasis)

In-line with the expansion goals of the company, some lower-level staff were sent from New York out to the satellite offices, literally embodying Farmigo's New York export

model. Some of the keenest insights into the geographic differences between regions came from the individuals who were based in more than one region throughout their Farmigo tenure, rather than those who *oversaw* staff and/or operations in more than one region but remained singularly place-based. Interviewee CA03 is an exceptional example; in her role she was responsible for recruiting and training the Farmigo Organizers (the customers who hosted pickup sites and recruited new customers). Originally hired in New York, she had been highly praised across the company as a high-functioning New York employee. Beginning as a Farmigo Field Organizer she was promoted to a management position soon after her initial hire. Later, when the California region was struggling to grow, she was asked to relocate to the Bay Area and support customer-facing growth efforts there. She then moved to California and found that the tactics she had used for successful customer recruitment and retention in New York were not replicable. Instead, she struggled in her role on the West Coast, and ultimately with the company, eventually determining that there was little need for a Farmigo-type model in the San Francisco region. She discussed her struggles in this geographic transition with me, saying:

"In New York I did try to educate. New York felt easier. I'm not sure - I had a much easier time getting it to work in New York. And that could be for a whole bunch of reasons, but I think that people really were excited about it, and they were more willing to sell, sell, sell. New Yorkers are pushy, and they were totally fine going up to their neighbors and knocking on doors, and in California, it was like, 'whoa, I don't even like sending texts to these people.' ... In New York again, dating back to the point that it was novel to them. Organic is such a buzzword there. And I can't speak to the last six or seven months, but when I was there [in New York], I had Organizers who were just throwing around terms. Which, as we both know were not totally understood. ... And they had no idea what they were talking about. ... But in California, people totally understand what organic is. And this isn't novel to them. So, it's not like this is exciting, that they can order their groceries on-line, because of all the options they have. But, in terms of if they thought what we were doing was a good thing, I think that a lot of support goes into local farms and families and food here [in California]. So it resonated with them. But they do have the farmers' market and they do have other places [to buy this type of food], so I don't think that Farmigo was the only option. Whereas in New York it was. There are a few other options, but it wasn't as broad and available to them." (CA03)

In the quote above interviewee CA03 highlights the two key geographic differences across the New York and California regions: a difference in market access and a difference in consumer understanding of alternative food, both of which stem from the different histories and impacts of the food movement in each place.

In many ways, the failure of Farmigo's replication on the West Coast was grounded in two flawed assumptions. First, that they were providing a marketplace that was otherwise inaccessible in these regions. Second, that they were providing a product that was novel and not well understood by their customer base. Farmigo's failure to recognize these crucial place-based differences in alternative food access and in

consumer understanding is mirrored by much of the discourse on the alternative food movement. Though there are many place-based studies of AFNs across the literature, few provide place-based comparisons, and even fewer (if any) acknowledge the differences in the stages and emphases of the food movement across place (Galt, 2013). Rather, conclusions are drawn from these analyses that portray a uniform “food movement” across the nation. Admittedly, this research project itself is also limited in scope in that it does not include case studies of regions in the Southern or Central United States, nor does it examine regions that are not centered around a metropolitan core. Additional place-based research on consumer access to, and expectations of, alternative food markets would provide valuable insight onto the true depth and complexity of the alternative food movement unfolding across the country.

5.2.3: Density and Transportation in Urban Centers

"[The model] seemed to work in New York. It worked in a place that had high population density, and lower access to all of the food. And, I think, more of an expected cultural norm about people selling things. I mean, it definitely seemed, in some ways, to work there ... compared to here [in San Francisco] at least." (CA05)

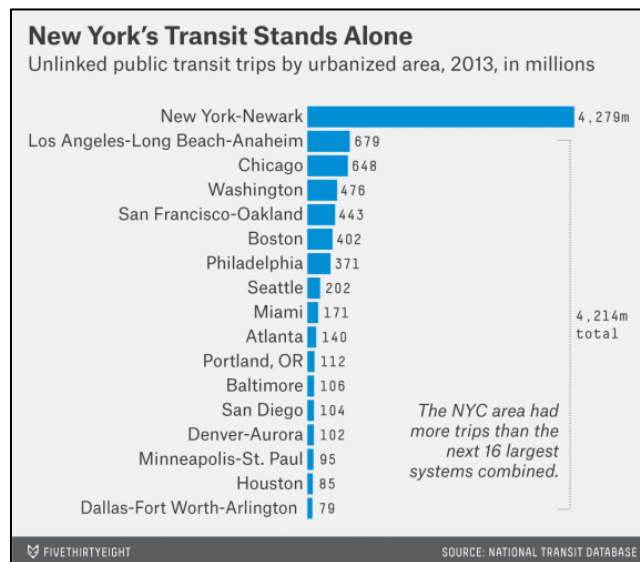
Much has been written about the value of dense urban spaces, of cities, to the development of culture, creativity, and innovation. From archeologist V. Gordon Childe's pivotal research on the urban revolution and human development (Childe, 1950), to activist Jane Jacobs' passionate account of the value of cities, particularly her home, New York City, in attracting and nurturing creativity and innovation (Jacobs, 1961). For the tech-AFNs, urban centers simultaneously provide the space to incubate new ideas and opportunities for economic enterprises (Florida & Mellander, 2016). Further, high population densities drive up the demand for seasonal and locally-grown, organic and alternative food markets (Jarosz, 2008). Yet, cities, like regions, are not uniform in their form and function. In this section I review two key infrastructure aspects that directly impact the implementation of the tech-AFN within the urban core: density and transportation.

Key distinctions between major metropolitan areas on the East and West Coasts of the United States pertain to differences in population density and transportation. With a total population of 19.5 million people, and a population density of 2,826 people per square mile, the New York metropolitan area is both the most dense and the most populated in the nation (Census, 2010). In contrast, the San Francisco metropolitan area has a population slightly above four million, and a population density of 1,755 people per square mile (Census, 2010). The smallest of the three, Seattle has a population of just over three million, and a population density of 1,169 people per square mile (Census, 2010). Some of the differences in urban density across these three cities lie in later urban development and subsequent urban sprawl in the younger cities of the West Coast, while some metropolitan area density differences relate to the growth of the suburban periphery and of the “technoburb” alt-urban low-density development outside of the urban core. For example, Redmond, Washington,

home of the Microsoft corporate headquarters, is a model “technoburb” (Fishman, 1987), and was an important component of Farmigo’s Seattle-area operating region

In terms of population density there is little comparison between New York and the San Francisco and Seattle regions; there is also little comparison in terms of public transit infrastructure. Though both Seattle and San Francisco have active urban bus systems, and while San Francisco has the BART and Seattle has a single line of high-speed light-rail, neither city’s public transit options can compare to the massive network of subway or commuter trains, not to mention buses, that comprise the New York City and region’s public transit system. ACS data from 2013 shows the New York Metro Area as having the highest rate of public transit commuters (McKenzie, 2015). Similarly, an analysis of national transit data demonstrates that the New York region has a use rate of public transit that is greater than the sixteen next largest metropolitan areas combined (see *Figure 5.6* below) (Fischer-Baum, 2014).

Figure 5.6: Public Transit Trips by Metropolitan Region (Fischer-Baum, 2014)



For a company like Farmigo, distributing food to communal pickup sites in people’s homes, schools and work sites, factors such as population density and transportation make a major difference in model design and success. Further, for any new tech-AFN, and for an analysis of the spread of the local and alternative food movement across space, regional differences in density and transportation matter. As with other aspects of the expansion of Farmigo’s New York-centric model, attention to drastic differences in regional population density and transportation patterns did not seem to be taken into account in either the process of design for model replication nor in the implementation of the model in expansion sites. For example, Farmigo operated pickup sites in New York that were comprised solely of residents of a single apartment building, or of a single city block. When the company attempted to mimic that model in the much more sprawling Seattle region, there was not enough density to maintain profitable community sites in such small areas. This distinction in density meant that a

model developed for a New York system was untranslatable to city with a lower population density, such as Seattle.

Worksites in Washington

Soon after I was brought on board with Farmigo's Seattle region, and learned more about the pickup model, I began advocating for the promotion of work sites in Washington. My role as the consumer-facing side of the expansion of the Seattle market was to find and to train "Organizers," the local leaders who hosted the weekly pickup sites and who were primarily responsible for bringing in new Farmigo members, our main customer base. The model we were given primarily relied on following up with "leads," local residents who were driven to us by ads promoting local food and community building on social media. My team would meet with "leads" to determine their interest and capability of becoming "Organizers," and then work with them to build their communities, the local pickup sites. My role was to oversee the implementation of this process across the Seattle-Tacoma region. Another department was responsible for connecting with schools and bringing us a pre-determined Organizer from a vetted and established school site. Our Organizers were meant to primarily host the pickups out of their homes, and occasionally establish sites at their work in local businesses such as coffee shops or yoga studios. I had immediate reservations regarding the success of the home site model in the Seattle region. As an East Coast transplant myself, I had been culturally shocked my first winter in Seattle experiencing the oft-mocked but very real-feeling 'Seattle-freeze.' People in Seattle tended to keep to themselves, I found, more closely tied to their neighborhoods, their homes, and their existing communities than the people I knew back in Massachusetts, where I had just moved from. I could not image Seattleites welcoming strangers into their homes as a pop-up grocery market. Nor could I imagine them adopting the New York style of pushy self-promotion that our model suggested. Nevertheless, I encouraged my team to try it out, and to see what happened.

Simultaneously, I began to push hard on the management in the New York office to establish a workplace model in Seattle, similar to the existing model used around the country for school pickup sites. Outside of the small urban core I hypothesized that the majority of our target customer base commuted to work by personal automobile, in the very least in the winter months. Further, work sites are existing and pre-established communities, similar to schools, in which people already know and communicate with one another. Picking up groceries at a work site eliminates the need for an additional stop on the way home, and adds convenience and value to the customer, I reasoned. I was told a resounding 'No.' The company had tried workplace sites before, in New York, and did not want to waste energy reinventing the wheel.

I tried again. The school site model used an incentive of a slight percentage of the gross spending of each week as a fundraiser for the school, individuals who hosted the pickup sites out of their home tended to use the alternative incentive model, a large discount on the purchase of their own groceries. The total amounts raised through the percentage cuts were small, and unlikely to be a real incentive for larger businesses or organizations. However, I argued, if the incentive funds were earmarked for a local food related charity (such as a farmland preservation or anti-hunger organization) that could provide and enhanced incentive, and help to integrate the company as an ally in Seattle's alternative foodspace. The answer from the New York headquarters? Still "No," and more, "enough with the new ideas. Just focus on succeeding with the model that you were provided."

Needless to say, the homesite model failed to thrive in Seattle. After months of community organizing and relationship building my team had to close sites that they had worked diligently to build, because it became clear that they would never be profitable. The promotion of worksites was eventually approved, although without the community fundraising idea that I had initially advocated for. In retrospect, I now understand the pressure that the company was under to demonstrate the replicability of its model. But in the moment it was incredibly confusing and frustrating for me. *Why push so hard for a model that they are being told will not work? Why not try to understand the differences in culture and in lifestyle of the place where you are expanding into?* The approach stung to me of a colonial mentality, in which hot tea is drunk in the late afternoon in hot climates, regardless of temperature, simply because the afternoon is when it's time for tea.

In terms of transportation, there was a greater desire for residents relying on public transit to pickup groceries in their apartment buildings or on their city blocks in New York. In contrast, the majority of Farmigo customers in the Seattle and San Francisco region commuted by personal automobile. For these customers, a stop to pick up weekly orders of Farmigo groceries was not dissimilar to picking up groceries at the nearby mainstream grocery store, or one of many cooperative stores or year-round or seasonal farmers' markets operating in the area. In other words, the Farmigo model did not seem to support the lifestyle of the target customers in the Bay Area or Seattle-Tacoma regions, at least not in the way it that it was designed to function in New York.

The importance of physical infrastructure and regional factors of transportation and density cannot be overlooked in the role of AFNs in modern foodscapes today. The shift towards the suburbanization of the "big box" grocery store model was a direct result of de-urbanization and automobile-driven suburban sprawl (Ellickson & Grieco, 2013; Mamen, 2007). In contrast, as major metropolitan areas grow in density and population size, new hybrid tech-AFNs are targeting primarily urban consumers with limited transportation options by bringing a selection of carefully curated products directly to them. Analyses of differences and shifts in density and transportation are essential in understanding the *replicability* of these tech-AFN models.

As a greater percentage of the population opts for home delivery of goods purchased in online market places, we face a shift in the consumption model. The implications of this consumption shift are two-fold. First, just as the transition towards “big box” chain stores shut down smaller grocery businesses and led to issues of inequity in food access (commonly referred to as “food deserts”), so too are equity and food access concerns relevant to this digital switch (see *Chapter Four*). Second, as tech-AFNs attempt to grow alternative food markets through their entry into “the last mile” of food distribution, the model must be tailored to place-based specificity for factors of density or transit, or replication of the model will fail to function or succeed. Thus, factors of model replicability must take into account *both* place-based cultural differences as well as variations in alternative food market access, *in addition to* differences of density and transportation within the tech-AFN distribution region.

5.3: Grounding the Local in Place

“I think [the model] can scale, if you actually regionalize it... I really do think it's scalable. But you need to be ready and willing to adapt. ... I think the sourcing strategy is a pretty big one, in terms of standards. Which I still think is modifiable, but... the digital experience needs to be interchangeable.” (CA05)

The interconnected growth of globalization and modernity is creating a world that is seen as increasingly “placeless” (Feagan, 2007). Technological innovation is integral to modernity, and the tech-AFN, with pressures to replicate for VC-investment, is also designed to be “placeless.” Yet, traditional AFNs are deeply grounded and embedded in place (Jarosz, 2008). This final chapter section explores the place-based tensions in tech-AFN goals of replication (known in startup speak as “scaling”).

As noted previously, academic literature on the “food movement” in the United States, particularly on the “local/alternative” food movement, fails to address place-based differences in the origin and evolution of the food movement across regions. Yet, the local food movement is also known to be place-specific and contextually emergent (Jarosz, 2008). Thus, in this chapter I argue that using blanket statements about the food movement in the US that are not grounded *in place* fails to acknowledge the histories and ideologies that drive these movements. Further, while many critical food studies on AFNs are indeed grounded in place, there is a lack of place-based comparative studies on alternative food networks in the literature. Therefore, AFNs are often inaccurately characterized uniformly across the United States, although as I have demonstrated thus far in this chapter, clear regional and East and West Coast differences exist in food cultures, food availability, and the understandings of the role of AFNs. Arguably, Farmigo’s failure to conceptualize the differences in the food movement, and consumer awareness and need, across its regions is emblematic of the error in the food movement literature’s lack of regionally-based spatial specificity and the inaccurate notion of a uniform food movement across the country.

When traditional AFNs attempt to “scale” (i.e. to expand geographically) their focus tends to revolve around issues of logistics and infrastructure, rather than on existing

food and social networks or the place-based social movements that are guiding them (Connelly & Beckie, 2016). Further, as traditional AFNs attempt to scale, they are also often confronted with struggles of continuing to promote their initial social and environmental food system goals without compromise (Cleveland, Müller, Tranovich, Mazaroli, & Hinson, 2014). In this section I discuss aspects of both of these compromises of scale for the hybrid tech-AFN model. First, I review the power of place-based local movements and return with a renewed focus to the role of the “local food” movement in industrial food system opposition activism. Here I trouble the critique of the local with an analysis of the importance of place, particularly for the tech-AFN. Second, I examine Farmigo’s expansion goals and the intersections of exclusion in the tech-AFN model. Finally, I review the decision-making processes around the replication and expansion of Farmigo to certain “new market” regions, and the implications within the industry of the prioritization of tech growth over food movement goals.

5.3.1: From Local to Place-Based Perspectives

Much of the critique within food studies literature lambasts the local food movement as unresponsive to the concerns of the conventional industrial food system. Born and Purcell argue that there is nothing inherently “good” about scale, as locally-scaled food systems are as likely or unlikely to be just or sustainable or secure as global ones (2006). Similarly, Allen contends that the local scale does not necessarily enhance people’s voices or positions of power, as power asymmetries also exist at local scales (2010). Goodman and DuPuis also caution against valorizing the local, as trends towards “unreflexive” localism are creating inaccurate perceptions of food system norms at the local scale (2006). Rather, they question broad perceptions of inclusivity and “caring” within local food systems (DuPuis et al., 2006). These concerns do not exist only at the local scale, but also at the regional one. In her work, Kneafsey extrapolates these critiques about local food systems and applies them equally to food systems at a regional scale, though she does note the importance of “territorial identities” (i.e. *place*) in peoples’ lived experiences and consumption behaviors (2010).

Certainly, the *location* where a food product is grown or processed indicates nothing about the conditions within which that product is produced. Perhaps some of the contradiction comes from an over-excitement and over-emphasis on “food miles.” There is indeed a decrease in fossil fuels used to transport food “locally,” however, the high inputs used in industrial food production outweigh the decrease in total fossil fuel use for local transport (Born & Purcell, 2006; Coley, Howard, & Winter, 2011). Just as traditional AFNs have generally overlooked the importance of social networks and social movements in their attempts to scale (Connelly & Beckie, 2016), I argue too that scholars who have dismissed the value of the local food systems outright are missing a core aspect of the AFN construction. While I agree that there is nothing inherently “good” about scale (Born & Purcell, 2006), and too am wary of acts of “unreflexive localism” (DuPuis et al., 2006), let us not forget for the AFN, or for the tech-AFN, the role and value of *place*. Place is not fixed to a specific scale, but rather is defined

contextually as a “constitutive element in the politics of identity” in relation to the “(localized) human (intersubjective) experience,” (Paasi, 2002, p. 806).

The industrial food of our dominant global food system is purposely “placeless” (Guthman, 2008; Murdoch & Miele, 2004), with fast food as the antithesis of the global homogenization of food and culture (Schlosser, 2012). The fast food chain McDonalds, for example, presents a perfect example of the “placeless” food delivery model. Though the menu is tweaked slightly to reflect regional cuisines (for example, offering a McAloo Tikki burger in Delhi), the intention behind the McDonalds model is the *soothing expectation of sameness* for consumers across the many McDonalds franchises around the world (Schlosser, 2012). The global grocery system follows the same model, with goals of uniformity with big brand products equally accessible in stores across the nation. Within neoliberal globalization, uniformity has become synonymous with scale (Guthman, 2008), in that companies’ scale successfully by offering the same products across place.

In this chapter I posit that the role of place-based networks in strengthening community ties and the power of a regional place-based identity has been overlooked in the creation and scaling of the tech-AFN. Local movements are situated in place; they are not contained by mile-markers or artificially-produced boundaries, but rather are strengthened by a shared understanding of place-based identity, creating a “social movement space” (Nicholls, 2009) in which they strengthen and propel their movement goals. Further, it is the informal connections of trust, cooperation and common understandings within alternative networks that strengthen localized supply chains (Marsden, 2004). These relationships are not inherent to the local scale, but rather are created by the strength of community networks grounded in *place*.

It is likely that, seeking goals of uniformity across place aided the case study company’s failure to effectively scale. For Farmigo, as for much of the marketing around “local” food systems, “local food” was defined almost entirely by a quantifiable mile-radius. The need to quantify and calculate has propelled the “food miles” measure to the forefront of local food promotion, and much of the critique around the low value of food miles boundary focus is well founded. The failure to acknowledge and to integrate the “messiness” of local community networks and systems, however, and the failure to capitalize on the power of local movements grounded in place-based identity and pride, caused Farmigo to fail to integrate efficiently with local AFNs *in place* and also to fail to connect with the leverage of *local food movements* in place.

The opposition to the global industrial food model is a place-based food system that accounts for equity and environment (and the externalized costs paid by people and the planet), at *all* aspects of the food chain, from production through distribution to consumption and waste. Farmigo’s goal was to be the curator and verifier, in addition to the distributor, of this oppositional food system model, such that the Farmigo logo indicated consumer trust in their alternative, and oppositional, supply chain. Part of Farmigo’s failure to succeed likely stemmed from an inaccurate assumption that the nuances between industrial and alternative food models would be straightforward

(clearly, they are not), and part of their failure may also be attributable to an over-focus on food miles in “the local” as opposed to *place*. These factors, combined with the VC pressure to demonstrate the replicability of their model, led the company away from tactics of connecting to existing community networks and programs in their expansion locations. Arguably the successful local or alternative food system is selling not only a locally sourced food product, but also incorporates pride in its “local” place-based identity and network connections. For a “local system” to scale successfully, attention must be paid to local networks and community cultures formed around place-based social movements *that already exist* in the new sites of scale, and that are already promoting alternative foods in place there.

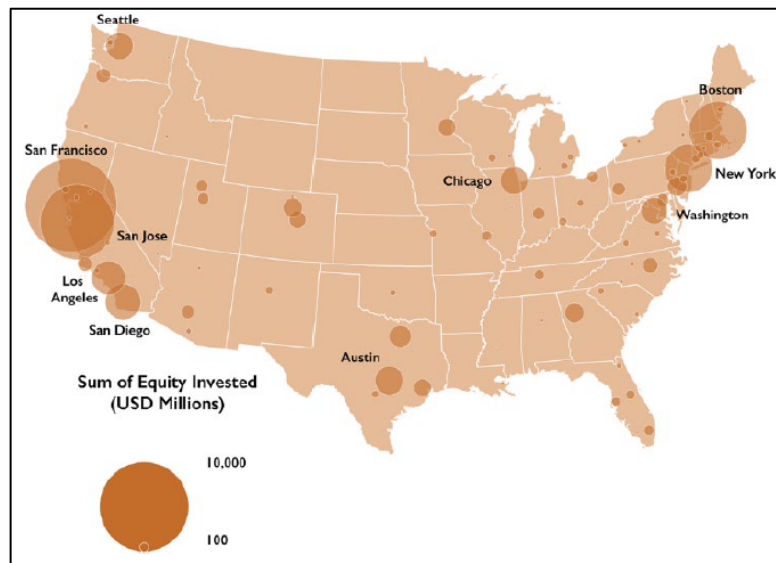
5.3.2: *Who's Included: Where Farmigo Wasn't*

"I think the regions we chose to enter into were not ideal for what we were trying to do." [AM: Why not?] "Because I think that there are areas with less - with equally concentrated amounts of people who don't have any of these kinds of services, who would go wild for something like Farmigo if they were given the option. ... When Good Eggs was in their expansion phase and they went to New Orleans and Atlanta, they grew quicker in those two cities than any other region they went into, just because there was nothing like them there." (CA01)

When Farmigo chose the Seattle area to demonstrate the ability of the Farmigo model to replicate (as noted in *Chapter Three*, a key milestone for VC funding), the Seattle region was a strategic choice for three key reasons. One, the region had a strong existing producer network and consumer base interested in local and organic foods, both essential for Farmigo’s business model. Two, the region’s temperate climate lent itself to longer growing season, making it a more advantageous region over similar sized metropolitan areas such as the Boston area, for example (another region on the short list of potential expansion contenders). Three, the Seattle region included a thriving technology and startup industry with access to potential venture capital fund investors (see *Figure 5.7* below). The Seattle area was chosen out of a short list of seven different regional options, with the others in the top three being Atlanta, Georgia and Houston, Texas. As noted in the story of Farmigo’s history, however, the company closed operations before future expansion to additional regions could occur. In this section I explore Farmigo’s decision to demonstrate replicability in the Seattle region specifically, and the impacts of tech-AFNs’ focus, broadly, on expansion along the Northern East and Western Coasts of the United States.

Farmigo’s primary competitor, Good Eggs, followed similar trends of geographic expansion as Farmigo, with one exception. Founded in the San Francisco Bay area, Good Eggs expanded to the metro regions of Los Angeles, New York, and New Orleans; New Orleans being the outlier in the tech-AFN expansion model. Good Eggs had previously employed several of the California-based Farmigo employees interviewed, as they joined the Farmigo staff team after Good Eggs downsized in the summer of 2015.

Figure: 5.7: Venture Capital Investment Across Metro Areas (Florida & Mellander, 2016)



One of these interviewees spoke to me at length about the Good Eggs market in New Orleans. She was perceptive in her comments that “something was different” about the New Orleans marketplace, in that in New Orleans there appeared to be a higher demand for a tech-AFN than in either of the East or Western Coastal regions where Good Eggs was also operating. She said:

*“Interestingly with Good Eggs, one of the most unfortunate things, for me at least, was shutting down New Orleans. Because New Orleans was actually growing the fastest. And was showing the most signs of promise, because they were genuinely providing something to the community that just didn't exist. And they were - more importantly I think - this idea that online farmers' markets provide additional retail outlets for farmers. You know farming, doing farm stands and farmers' markets, those are really, really, costly things to do, and you can only do so much... So a company like Farmigo or Good Eggs, where you can just drop off a bunch of cases and just walk away, is additional income. And it's not instead of; it's in addition to. And **in places like New Orleans, they desperately needed that, because there was a demand for the food, and for the quality being produced, but there was no infrastructure. Or, it was just developing... I think it's that they were in a different point in their belief about food. And if San Francisco or Seattle are like, at the forefront of thinking, I think that smaller cities and towns, especially ones that don't have tons of exposure, they're just in a different place.**” (CA07, emphasis mine)*

The quote above highlights the disconnect between goals of tech-AFN expansion for VC investment and corporate growth, and goals of tech-AFN expansion for producer and consumer (i.e. “community”) needs. Nationally, tech-AFNs are following tech growth trends, seeking goals of future investment and growth rather than prioritizing goals of food system change. A recent article in the online food news magazine *The New Food Economy* emphasized this regional inequity in food and tech with the title *Who's*

benefiting from the billions invested in food startups? Not Middle America: On the failure of Oklahoma City's Urban Agrarian - And why local food is struggling outside the coastal bubble (Simpson, 2017). The article lambasts the coastal urban elite food startup tech-AFNs, directly calling out both Good Eggs and Farmigo, for ignoring the middle of the country in their geographic expansions. Simpson makes a passionate plea for a redirection of VC funds towards middle America, and praises the efforts of the hyper-local activists for working food system change in these states (2017). And yet, with the exception of New Orleans, both of the two companies named in this article were merely following the trends of their startup peers, focusing their efforts on liberal, coastal, and tech-heavy urban-centered regions.

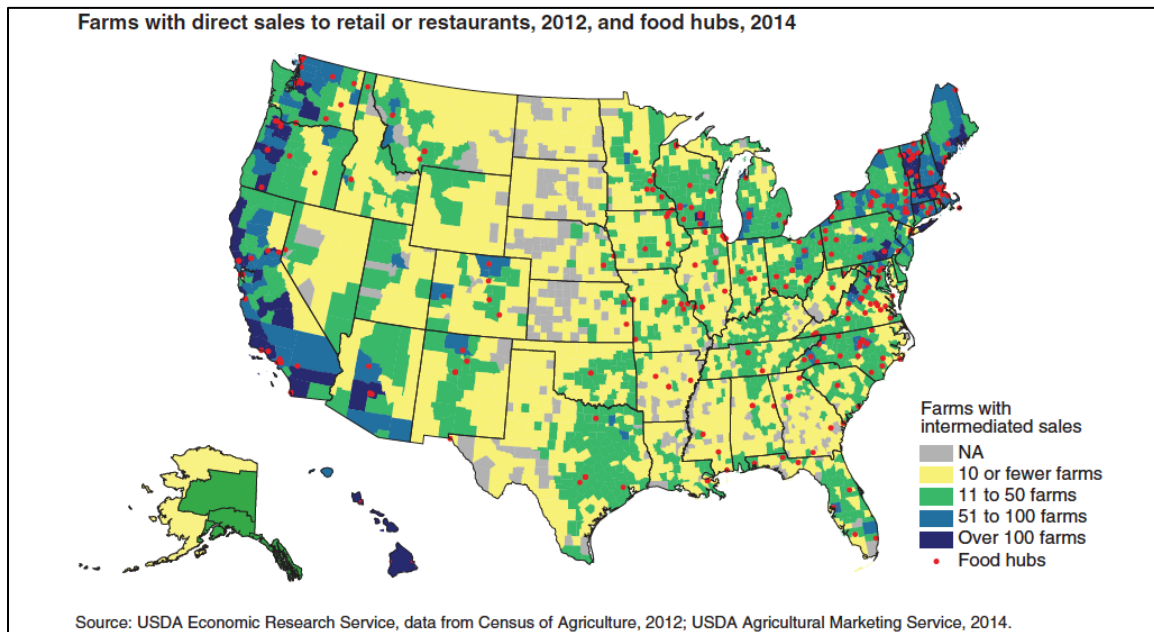
Farmigo's model, emblematic of the current tech-AFNs, was driven by tech-oriented business decision making first, and by AFN-oriented decision making second (see *Chapter Three*). Notably, traditional AFN models don't face the same pressures to scale as tech-AFNs, so they tend to remain primarily embedded within the community from which they originally arose. The emergence of an AFN-oriented tech-AFN hybrid model, however, and a model that is supported by, rather than driven by, trends in tech development, might approach national expansion efforts differently. In other words, expanding to regions with higher rates of "alternative food access" needs, rather than areas with tech and investor networks, might not only support broad goals of food system change, but might also scale more successfully. Thus, it is important to note that in focusing on the coastal urban regions, *both* the expansion efforts of Farmigo and of Good Eggs failed to thrive.

In contrast, a 2014 USDA analysis of direct farm sales and food hubs across the country (see *Figure 5.8* below) demonstrates that while there is a concentration of direct sales and food hubs along the nation's coasts, efforts to aggregate "local" food sales are in fact occurring all across the country (ERS, 2014). These statistics are corroborated by research demonstrating that "despite the lack of local markets and consumers for many organic and alternative products, like those available in Seattle and other affluent "foodie" regions," rural regions tend to be overlooked by alternative food scholars though they do, in fact, contain numerous alternative food systems (Selfa & Qazi, 2005, p. 461). Thus, where there is certainly a *greater* quantity of AFNs in urban coastal areas, unsurprisingly, AFN models and consumer interest exist broadly across the nation. Further, as Selfa and Qazi note, the current ways in which AFNs are imagined is also based in urban and coastal models, such that alternative food systems operating in rural and other regions may not be being acknowledged or recognized as such (2005).

An attempt to fully analyze the scope of need, and likelihood of success, for tech-AFNs inside and outside of the coastal regions lies outside of the scope of this research study. However, in many ways, Farmigo's national expansion efforts mirrors the maps of its regional delivery sites, concentrated in spaces of racial and economic privilege. Just as the East and West coastal regions of the United States are at different stages of their development in terms of their education about and adoption of the food movement and of new technological innovation, so too are the regions across the middle of the United

States. More research is needed to make definitive claims; however, the evidence suggests that regions with limited local and organic (“alternative”) food distribution and retail options may be better suited for the implementation of tech-AFN models than the overly-saturated markets of the regions surrounding San Francisco and Seattle, for example. Indeed, the burgeoning local food initiatives in other areas that have their own deep cultural and historic relationships to food and place, such as the New Orleans Good Eggs market and the Oklahoma City example highlighted in the *New Food Economy* article, may likely be ideal sites for the implementation of new place-based tech-AFNs.

Figure 5.8: Direct Farm Sales and Food Hubs Across the US, 2014 (ERS, 2014)



Spatial analyses of inequality demonstrate that geographic patterns of innovation are linked to patterns of racial, gender, and economic inequalities (Gilbert & Masucci, 2011). Indeed, through globalization the portals of the “global-city-region” propels certain metropolitan regions into technologically-connected globally networks, while others remain limited by geographic boundaries (Harrison, 2013). The promotion of tech-AFN expansion along the Northern Coastal corridors of the United States replicates the growing inequalities within the Global North in both food and technological privilege. Thus, the unintended by-product of VC’s uneven geographic investment is the increasing advantage of certain regions to grow not only their tech industries, but also the networks connected to new startup ideas, such as tech-AFNs. Based on this research it appears likely that, without intervention, the growth of tech-AFNs will continue to privilege urban consumers in wealthier neighborhoods within regions, as well as the wealthier and more globally connected urban-centered coastal regions themselves.

5.4: Conclusions: Scaling the Tech-AFN

This research demonstrates that regional ideologies influence the adoption of tech-AFN models and notes the importance of place-based sensitivity and connectivity in the strength of all AFNs if they intend to scale, and in particular the tech-AFN. This work aims to ground the importance of those food-related technologies in place *as they scale*. Arguably, technologies that promote and propel the asset mapping of local programs and place-based social movements can scale. Further, technologies that promote and leverage existing AFNs *in place* can scale (and that is why Farmigo's other arm, their CSA software program, has done so well). Additional place-based research is needed, however, to determine the existing food networks and actor relationships in the locations where tech-AFNs intend to replicate. In general, ethnographic research is undervalued and is overlooked as a tool to enhance the integration of digital technological innovation within existing local systems and networks (Haines, 2016). Certainly ethnographic analysis appears almost nonexistent in the emergence of the tech-AFN. This research project presents a starting point for the questions to consider in the replication of a tech-AFN model across place. With continued contextual research, there may indeed be a place for the tech-AFN within the broad goals of the food movement as a true catalyst of goals of food equity and food justice, rather than simply as a driver of market disruption and investment growth opportunities.

Conclusion: The Tech-AFN in the Third “Food-Tech” Revolution

“There’s a focus on potential for diffusion above all else, leading to large bets placed on what the next “unicorn” will be. And those bets tend to come in waves that follow the latest trends projected from Silicon Valley thought leaders, not any sort of meaningful, systematic analyses. While ethnography holds great potential in helping startups find new paths ... the much more fruitful potential seems to be in guiding funders down new paths. After all, they play an outsized role in deciding what succeeds or fails.” (Haines, 2016, p. 188)

“Food is different. It is not just any merchandise or commodity. Food means farming, and farming means rural livelihoods, traditions and cultures, and it means preserving, or destroying, rural landscapes.” (Rosset, 2006, p. 9)

As I have demonstrated throughout this research, the dominant global industrial food system is powerful and deeply entrenched. Yet, this system is also poised at a moment of transition. Food retail is shifting rapidly towards online market spaces, seen most publicly in the recent purchase of Whole Foods Market by online retail giant Amazon. This period of technological innovation and shifts in food consumer habits could have a lasting impact on the structures of the current dominant food system.

Throughout this writing I demonstrated several key contributions to the literature regarding the growing intersection between food and technology. The first is the identification and clarification of the tech-AFN concept of a hybrid model that builds from – but is not the same as – traditional Alternative Food Network (AFN) models. Alternative Food Networks are traditionally defined as a network of actors engaged in the alternative food supply chains that are operating small-scale and organic production practices. Traditional AFNs are also generally defined in *opposition to the global industrial* food model, situated within a *value system* of social and environmental justice goals. I place the Tech-AFN as a hybrid entity because, while it is comprised of a network of actors in the alternative food supply chain practicing small-scale and organic production methods, the tech-AFN is also driven by the tech industry and VC-investment that function in line with neoliberal and industrial model ideals, rather than being opposed to them, and, further, is committed to geographic growth goals of market disruption, rather than being embedded in place.

I found deep internal tensions within this hybrid model due to the opposition of the venture capital (VC) and tech worlds with traditional AFN values and expectations. Venture capital is a high risk and high reward model, with a failure estimate of over 40 percent. The goals of VC investment are growth and scale, ultimately seeking market disruption through technical innovation. In contrast AFNs are deliberately small-scale operations with goals of environmental, social and economic system change within food systems. The VC-investment model seeks mass product distribution across space and place promoting ideology of the “technical fix,” and thus positioning technological innovation as the ultimate solution. In contrast, AFNs are deeply situated in geographic identity and culture (in place) and tend to be anti the “technical fix,” due primarily to

the historic legacies of the Green and Gene revolutions. I observed these tensions at play out within the case study hybrid in a multitude of ways; many of which ultimately led to a crisis of identity for the tech-AFN case study, and likely towards its failure to thrive and survive.

One core tension is in the way that food is viewed as commodity. There were two approaches by the employee actors within the company. In one, food was viewed as supply chain commodity like any other. In the other, food was seen as a different and unique type of commodity, and working with food was viewed as a *way of life*. Through observing the tensions around the commodification of food within the institution, it became apparent that the hybrid tech model was not taking into account the cultural and relational aspect of food selection, the supply chain of a living product, and, perhaps most importantly, the social and environmental justice goals of food system change. These are all core components of traditional Alternative Food Networks.

Further tensions existed regarding the timescale of the tech-AFN operations, in which the rapid timescale of the VC-backed tech startup was placed in direct contrast to the deliberately slower, relational and seasonal, timescale of the traditional AFN. Perhaps the largest tension of the tech-AFN comes from the pressure of Venture Capital investment to scale, to replicate a uniform model across geographic place, or to be “placeless.” In contrast, the AFN is deeply rooted and embedded in place. Place is essential to the culture, identity and functioning of an AFN. Finally, in its very existence, the hybrid tech-AFN embodies a deeply-rooted clash of ideologies around the value and role of the “technological fix,” traditionally promoted by a neoliberal approach in opposition to alternative food movement goals of food equity, workers rights, and long-term ecological sustainability.

The second core contribution to the research involved the role of tech-AFN consumers, most notably the relationship between ethical consumption and consumer engagement in food system advocacy and activism. There is ongoing debate in the literature about whether ethical consumption habits support or detract from civic engagement or activist goals of social or political change. The key arguments in opposition to this relationship argue that neoliberal consumption norms “deplete” activism, that consumption is an individualized act while political action is a collective act, and that consumption pathways are available to some consumers and not to all (Baumann et al., 2015; Goodman et al., 2010; Newman & Bartels, 2011; Pottinger, 2013; Willis & Schor, 2012).

Though mine is not a statistical analysis, but rather an ethnographic one, my research showed that the digital community created by the tech-AFN case study to promote ethical consumption also appeared to elevate food system issues and education, and encouraged broad food system engagement and activism by consumers well beyond the company's consumption focus. Thus, it appears that while consumption pathways are available to some consumers but not to all, digital community building around ethical consumption in the tech-AFN may in fact promote multi-directional knowledge flows that reframe consumption as more of a collective act and could promote

consumer education and involvement towards increased activism and civic engagement. My research outcomes support the aggregationist model of collective action, in which digital community building appears to support group socialization such that shared consumption patterns spread to consumer engagement.

I also focus on the equity implications for all consumers with the rise of the tech-AFN, noting the *intersections of exclusion* across both alternative food networks and digital space. In this case study, the tech-AFN functioned within a predominantly white, upper class and male leadership and management structure and served primarily a white, upper class and female clientele, also relying heavily on low or unpaid women's labor. In addition, consumers living outside of the case study's geographic delivery zones, those who do not have available time to participate in the model, or those without the financial means to afford the higher prices of tech-AFN products, were unquestionably excluded from the model. Thus, while the tech-AFN seemingly claims to be in support of disrupting the corporate food regime, in reality the model perpetuates unequal power structures that are amplified across both the alternative food movement and the technology industry. In theory, the tech-AFN has the ability to bridge gaps in market access for consumers, mobilize ethical consumers for political action, and disseminate food system knowledge and education beyond traditional AFN boundaries. Yet, access and equity concerns as well as gendered labor roles must be addressed if the tech-AFN intends to align with the food justice goals inherent to the alternative food movement broadly.

The third component of my research contribution involved regional conceptualizations of AFNs and of the food movement broadly. The tech-AFN is designed to scale geographically, and as such it provides an exceptional opportunity for regionally based comparative analyses. In this research I dissected the differences across the three regions of the case study company's operations, finding consequential place-based differences that ultimately harmed the successful expansion of the company in these new regions. Current literature on the alternative food movement in the United States includes differences *within* the movement, such as race and class discrepancies, but generally fails to incorporate place-based differences through comparative analyses; thus providing an inaccurate uniform perception of AFNs, and of the alternative food movement itself, across the nation.

Through analysis of the three regions in this case study I argue that blanket statements about the food movement in the United States that are not grounded *in place* fail to acknowledge the unique histories and ideologies driving these movements. Clear regional differences exist in food cultures, food availability, and the understandings of the role of AFNs, especially across the Eastern and Western Coasts of the United States. Ultimately, I found that the pressure from VC-investment to replicate a uniform model across place was damaging to the long-term survival of the tech-AFN. For a "local" food system to scale successfully, attention must be paid to place-based differences and to the existing local networks and communities already promoting the production and consumption of alternative foods in that place. There are opportunities for new technical innovations promoting alternative food networks to scale. The scalability of

technical engagement and support of AFNs will only thrive, however, if place-base systems, cultures, and existing networks are incorporated and invested in.

The tech-AFN is but one outcome of the increased digitization of our current food system. All along the food chain investors are actively seeking new early-stage tech startup models of food disruption to fund, i.e. to find the next “unicorn.” In this pivotal food-tech moment, it is not only food retail that is entering a new technological era, but also methods of food production (with examples of increased crop management tracking and data capture), and food consumption (through meal tracking and new diet-related technologies, etc.). Given this widespread entry of the food system into the digital sphere, I argue that we are likely in the beginnings of the third wave of the “Food-tech Revolution,” the first two being the Green and Gene Revolutions, respectively. The first food-tech revolution, the Green Revolution, took place between the 1940s to mid-1970s, and is marked by the global export of American industrial agricultural practices and hybrid seeds used in conjunction with chemical inputs (fertilizers, etc.) to promote higher agricultural yields. The second wave, the Gene Revolution, began in the mid-1990s, and is marked by the mass production and exportation of agricultural biotechnology and of biotech patenting. Arguably, this current “third food-tech wave,” beginning in the last several years with the adoption of smartphone technologies, is marked by increased systemic automation and digitization, that, unlike the first two, is not driven by large-scale corporate interest, but rather by the combined forces of small-scale startup tech companies and venture capital investment goals, as is demonstrated by the case study examined here.

The technological shift of the Green Revolution, viewed as the first major agricultural innovation since the creation of the plough, is historically situated in the global shift towards modernity, and was primarily driven by state actors and donor agencies (Parayil, 2003). The Gene Revolution, in contrast, is historically situated within the context of Neoliberal Globalization, and is driven primarily by public-private partnerships capitalizing on the privatization of the knowledge economy (Parayil, 2003). This new third wave food-tech revolution is also situated within the historic context of Neoliberal Globalization, but, as mentioned above, rather than being driven by state power or corporate interest, the third wave is instead driven by capitalist investors and tech entrepreneurs aiming to capitalize on the momentum of the digital and the “sharing” economies. Just as in the Gene Revolution, in which the primary profits are made off of the patenting and trade of agricultural chemical inputs rather than the agricultural products themselves (Parayil, 2003), so too in the third wave the primary profits are being made off of the creation of *new technological models* and the capture and sale of *data*, rather than the sale of the food or agricultural product itself. Notably, all three food-tech revolutions are international in scope. Though this research focuses on food-tech growth within the United States, the rise of online food retail is occurring globally, with the United Kingdom and China as the leading adopters of new food technologies worldwide (Porjes, 2014).

The primary differences in these three waves of food system innovation “Revolutions” relates to their differences in geopolitical context and control. In the third wave there

is little (if any) involvement of state or government actors or regulation, viewed by many food justice scholars as being critical for the implementation of market-driven food justice goals (Alkon, 2014). Conversely, many scholars also argue that neither the Green nor the Gene revolutions furthered goals of food justice or food sovereignty (Holt-Giménez & Altieri, 2013; Patel, 2013). The transfer of economic control from the knowledge economy towards the digital and sharing economies in this third wave food-tech revolution, however, *could* potentially provide a space in which the actors within the system (the alternative food producers, distributors, and consumers), might have *greater control* than in previously existing models, providing a possible avenue towards goals of food justice and food sovereignty not found in previous food-tech revolution iterations.

The emerging leaders of this third food-tech revolution can learn from the errors of the Green and Gene revolutions of the past, and, rather than imposing a pre-established set of guidelines and practices upon a food system in place (for example, the Green Revolution in India), they could instead use the developments of new technologies to grow and to support existing alternative food networks and oppositional food movements. As part of this third wave food-tech revolution, the hybrid tech-AFN is situated *both* within the global neoliberal system *as well as* within social movements promoting opposition to the global industrial food system. History demonstrates that new technologies can be a catalyst for social movements (for example, the use of Twitter in the Arab Spring); and that new technologies can also be major market system disruptors (for example, the major market shifts due to new models of housing and transit in AirBnB and Uber). But they have yet to be both at once. To be both a system disruptor *and also* a catalyst for the alternative food movement, the tech-AFN requires hybridity of, not only the AFN, but also of technology culture. To successfully implement alternative food movement goals, this reimagining will require a shift in the expectations of venture capital investors, such that demonstration of replication and scale is no longer seen only in the ability to implement an *identical model across place*, but rather, in the ability to implement a *flexible and adaptable model that integrates and connects place-based* alternative food networks and food activist movements.

There's a great deal of potential for the tech-AFN in this pivotal moment of food system change. There are opportunities to support sustainable food production and food producers, provide food access to food desert areas without physical stores, promote increased connections between ethical consumption and activism by building community around food, and more. Yet, as I've attempted to demonstrate here, the current tech-AFN hybrid is not grounded in ideological alignment with the alternative food movement, but, rather, in a venture capitalist-backed ideology of goals of market disruption through growth and scale. For the ideals above to be realized, attention must to be paid to ideologies around food, time, and relationship building, issues of race, class, and gender exclusion (as a beginning) and to place-based differences in food cultures and histories. Ultimately, it's highly unlikely that the Venture Capital-investment model will seek to note these attentions or to promote these values.

Increased operationalization of financial transactions across digital space, however, have already opened opportunities for new economic activities, and new economic systems (Gilbert, 2010). Further, new digital technologies can support community resilience and social action on the local scale (Roberts, Farrington, & Skerratt, 2015). New tech-AFN models are emerging that promote the “crowd-sourcing” of food-tech operations, thus integrating the future user as the investor, and leveraging collective funds for entrepreneurial growth outside of the traditional VC investor model (Dean, 2017). The creation of new and diverse economies that expand on the current capitalist market models can provide and promote increased engagement in social action (Alkon, 2014; Gibson-Graham, 2008).

If then, in this third wave food-tech revolution innovation is driven by the demands of the population, rather than by only the very wealthy VC actors or the state, there still remains a possibility for the market disruption of the industrial food system with the replacement with a more community-driven alternative food model. Yet, given the deep inequities in tech-AFN of location expansion, and inclusion, without intervention of a crowd-sourced model such as the one described above, the third wave food-tech revolution will likely instead lead to an even greater hierarchy within food system, further exacerbating existing inequalities in food access and the digital divide. Perhaps the new economies arising from new digital technologies can help to promote increase social engagement, and perhaps the new tech-AFN can help to realize these alternative food models, but this shift will not occur if tech-AFNs continue to operate and proliferate in their current state. Certainly this more egalitarian reality will not be realized if the core values of AFNs are removed all together from the growing food-tech interconnections and innovations.

Figure A1.2: Online Grocery Companies 2016

(Adapted from Rosenheim Advisors March 2016 USA Food and Technology Industry Online Grocery List)

| Company | Date Founded | Category | HQ Location | Distribution Area | Model | Specialty/ Focus | Delivery/ Shipping | Other Notes |
|--------------------------------------|--------------|------------|---------------|---|---|---|--|---|
| Abe's Market | 2009 | Startup | Chicago, IL | USA | Online farmers' market. Membership not required | Focus on healthy lifestyle, natural, organic, fair-trade foods plus | Free shipping over \$50 | Groceries + |
| Amazon Fresh | 2007 | E-Retailer | Seattle, WA | Selected major urban areas: Seattle, LA, NY, NJ, Philadelphia | Membership required - \$299/year. Different membership and pricing models in different areas. | Grocery delivery: everyday essentials and local products | Free shipping over \$50 | Groceries +. 3rd largest online grocery |
| Chicory | 2014 | Delivery | New York, NY | New York, NY | Connects recipes to online purchasing options | Recipe connection | N/A | Platform only - No grocery or delivery logistics. |
| DoorTo Door Organics | 2005 | Startup | Lafayette, CO | 15 states in East and Central USA | Organic produce box subscription. Can add groceries and meals. Free membership/ subscription model. Not daily delivery. | Fresh, organic, local and natural food products. | Free delivery on orders of \$75 or more | B-Corp. USDA Organic. |
| Farmbox Direct | 2014 | Startup | Brooklyn NY | Eastern and Mid-USA | Fruit and vegetable box weekly delivery. Box options: small, medium or large - "customizable CSA" | Fresh and local food | Partner with FedEx. \$6 NY shipping and higher | Modeled around USDA EBT budget |

| Company | Date Founded | Category | HQ Location | Distribution Area | Model | Specialty/ Focus | Delivery/ Shipping | Other Notes |
|--------------------------------|--------------|-------------|-------------------------|--|---|---|--------------------------------------|---|
| Farmers to You | 2010 | Startup | Montpelier, VT | Source New England farms, deliver Boston metro | Weekly ordering with community pickup sites. Minimum \$40/week. Seasonal items. | Seasonal produce. "Partner" families/farms | Community Pickup Model | Discourse of regional not local food shed |
| Farmigo | 2009 | Startup | Brooklyn NY | NY, NJ, Bay Area CA, Seattle WA | "Online farmers' market" - weekly ordering, community pickup. No minimum. | Fresh and local food. Sustainably, ethically grown. | Community Pickup Model | Certified B-Corp |
| Food Rocket | 2013 | Recipe Link | New York, NY | New York, NY | <i>Matches recipe ingredients with local grocers carry for recipe requirement</i> | <i>Connects recipes with groceries</i> | <i>Delivery fee by local grocers</i> | <i>Minimum order \$30</i> |
| Fresh Direct | 2002 | Startup | Long Island City, NY | New York metropolitan area | Fresh food and grocery delivery service. Daily home delivery, up to one hour after ordering. | Standard grocery and ready to cook items | \$4 for two-hour+ delivery and lower | Groceries+. 2nd largest online grocery |
| Fresh Nation | 2011 | Startup | LA, CA and Stamford, CT | CT and LA | <i>User browses online and personal shopper goes to the Farmers' Market, purchases the food, and delivers it.</i> | <i>Online platform connects farmers' markets to consumers</i> | <i>Varies</i> | <i>No warehouse facility</i> |

| Company | Date Founded | Category | HQ Location | Distribution Area | Model | Specialty/ Focus | Delivery/ Shipping | Other Notes |
|--------------------------------|-----------------------------|----------------------|--------------------|--|---|--|--|--|
| Good Eggs | 2011, with delivery in 2013 | Startup | San Francisco, CA | Bay area, CA (formerly also in LA, NY and New Orleans) | Next day home delivery model. Local and organic produce, meat, and fish. Includes meal kits and recipes. \$30 minimum order | Local and organic produce, meat and staples for next-day delivery. Customize local food selection. | Free delivery over \$60 | Certified B-Corp. Major downside in 2015 |
| Google Express | Delivery began 2016 | E-Retailer/ Delivery | Mountain View, CA | CA, NY, IL, MA, DC, NV, WI, MI, IN, OH, IA, MN, MO, KY | <i>Same day delivery. Source from: Costco, Whole Foods, Raley's, Smart and Final, the Vitamin Shoppe, Target, etc.</i> | <i>Competition to Amazon Fresh, Instacart, and Fresh Direct</i> | <i>Membership free delivery, or \$4 and up per order</i> | <i>Not own products: distribution for existing store markets</i> |
| Green blender | 2014 | Meal kit | New York, NY | Multiple states | <i>Weekly smoothie box</i> | <i>Organic, local and seasonal produce (when possible)</i> | <i>Free</i> | <i>Should be categorized under meal kit not online grocery</i> |
| Grub Market | 2014 | Startup | Newark, CA | CA products shipped USA (except HI and Alaska) | Same day and next day home delivery - platform for small scale farmers and businesses | "Organic Food for the 99%. | Free delivery > \$25 in CA. Other states via FedEx | No central warehouse Groceries + |
| Instacart | 2012 | Delivery | San Francisco, CA | Select US cities | <i>Online grocery – one-hour delivery. Source from: Whole Foods, Safeway, Costco, Market Basket, Target, etc.</i> | <i>Delivery speed</i> | <i>One hour delivery - \$15 and lower</i> | <i>No inventory or trucks: Workers/ drivers as contractors</i> |

| Company | Date Founded | Category | HQ Location | Distribution Area | Model | Specialty/ Focus | Delivery/ Shipping | Other Notes |
|-----------------------------------|--------------------------------------|----------|-----------------|-----------------------------|---|---|------------------------|--|
| Mercato | 2015 | Startup | New York, NY | New York City | Connects consumers to local specialty food shops for delivery | Artesian and crafted fine foods | Included in cost | Bike delivery. Source from existing markets. |
| mySupermarket | 2006 | Delivery | London, England | UK | Independent shopping and comparison website | Deals | Included in cost | Compares across supermarkets, direct delivery from market |
| NextDoor Organics | 2011 | Startup | Brooklyn NY | NYC | Weekly food box: small, med, or large subscription for neighborhood pickup sites around NYC. Can add items. | High quality sustainable, traceable local organic. Source new, young, urban, and activist producers | Community Pickup Model | |
| Peapod | 1989 (bought by Royal Ahold in 2000) | Delivery | Skokie, IL | 12 states and Washington DC | Centralized distribution model for all Ahold grocery stores | Easy and affordable | Included in cost | Largest online grocer. Owned by Royal Ahold (Stop & Shop, Giant Food Stores, Giant Food) |

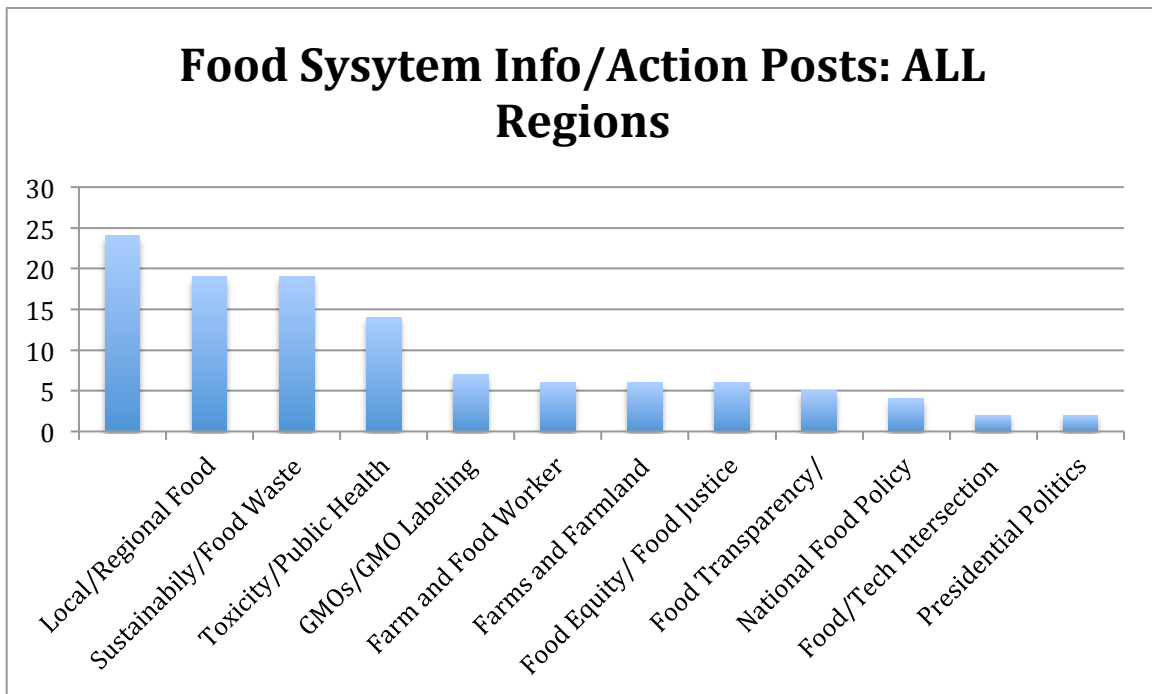
| Company | Date Founded | Category | HQ Location | Distribution Area | Model | Specialty/ Focus | Delivery/ Shipping | Other Notes |
|-----------------------------|--------------|----------|---------------------|------------------------------------|---|---|---|---|
| Relay | 2009 | Startup | Charletts ville, VA | DC, Baltimore, VA | Community pickup sites or home delivery. Groceries, and recipes/ meal planning. \$5 fees for orders under \$35. | Healthy, responsibly sourced, local groceries | Free community pickup sites, or home delivery 5 days/week | |
| Thrive | 2013 | Startup | Los Angeles, CA | All USA (except Alaska and Hawaii) | Online shopping club - wholesale "healthy and natural" foods. Focus on non-perishables. \$60 membership. | High quality, ethically sourced, great value food | Variable rates | Includes private label products. Donates some free memberships. |
| Whole share | 2010 | Startup | San Francisco, CA | NY and New England | Group bulk purchasing. No membership fees or subscriptions. Community pickup sites. | Wholesale prices on healthy and sustainable food | Delivery fees variable by seller | |

Categories (developed by author)

- E-Retailer - Online retailer moving into grocery markets
- Delivery – Does not have own inventory
- Recipe Link – connects recipes to grocery markets
- Meal kit – provides meal kits, different than groceries
- Startup - Venture-capital backed startups doing food distribution
- Supermarket - Storefront supermarket moving into online market space

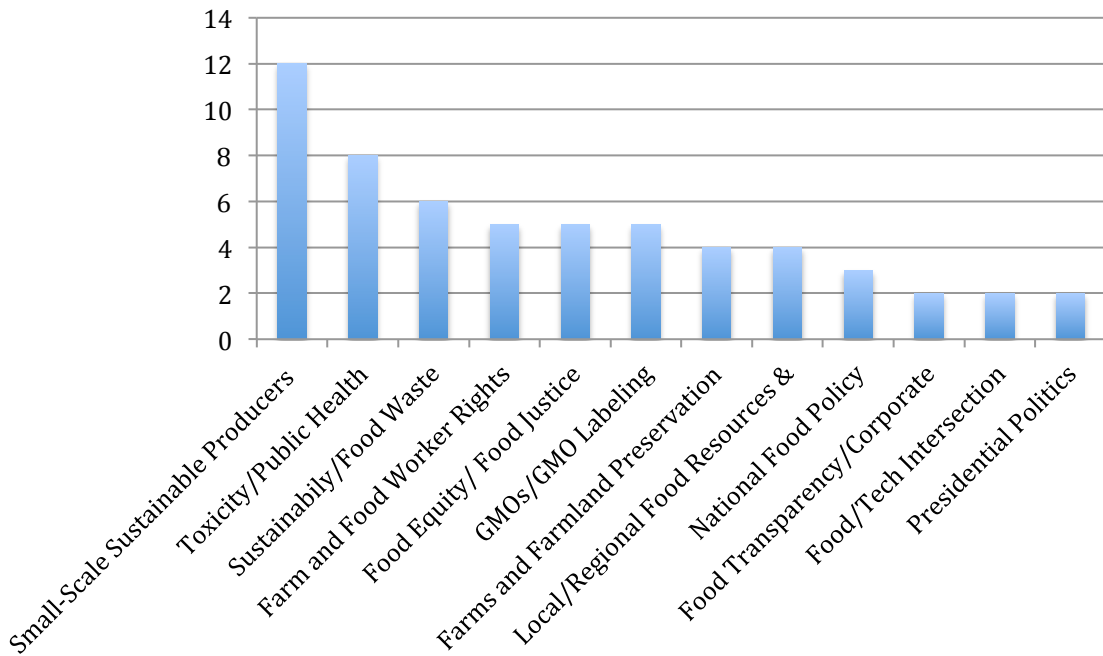
Appendix Two: Facebook Group Posts Data and Examples

Figure A2.1: Food System Info/Action Farmigo Facebook Group Post Categories ALL (accessed July 17, 2017)

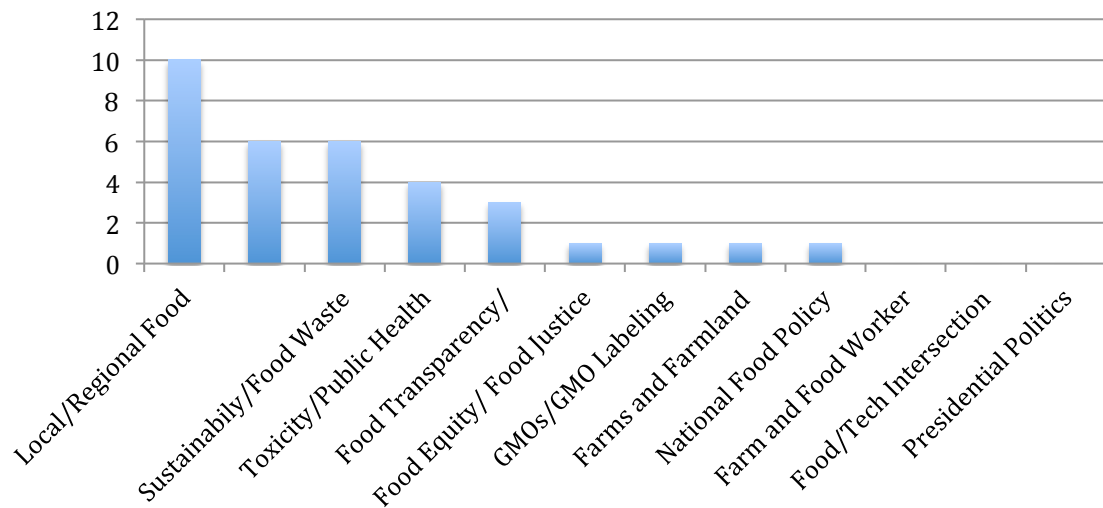


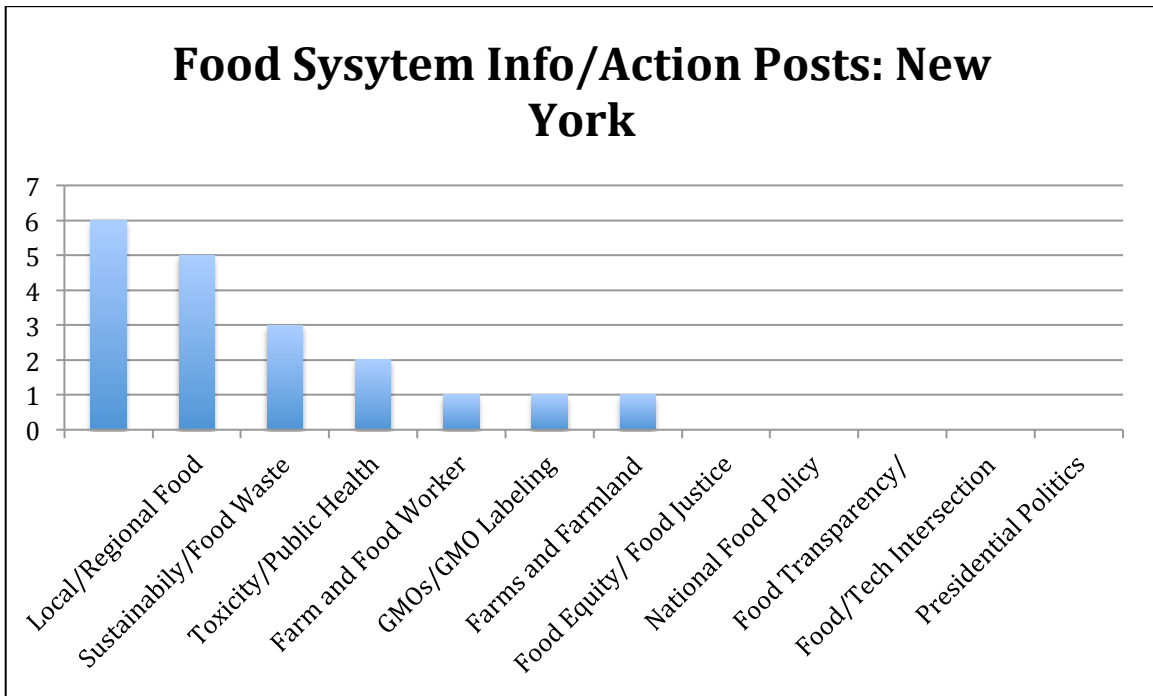
Figures A2.2 – A2.4: Food System Info/Action Farmigo Facebook Group Post Categories by Region (accessed July 17, 2017)

Food System Info/Action Posts: Seattle



Food System Info/Action Posts: San Francisco





Figures A2.5 – A2.8: Farmigo Facebook Group Post Categories Examples (accessed July 17, 2017)

Figure A2.5: Group Post Categories Example: Farmigo Ending

Truly at a loss and surprised the Bay Area couldn't cut it. And now I have to grocery shop again....

Like Comment Share

I hate to jump to this so soon, but would love suggestions for other local, organic food delivery in the Seattle area. Preferably more than just produce. Farmigo has been such an amazing convenience for our family that I can't imagine going back to grocery shopping the way we did before. If anyone has found any decent alternatives I'd love to read more about them. I know many of us and our members want to keep eating locally and sustainably as much a possible.

Like Comment

Wow. We are so sad. Our community had just started to increase members and we thought we were on the road to success. I loved the products offered and I'm shocked. I will miss my deliveries and I hope it comes back!

👍 Like 💬 Comment

Figure A2.6: Group Post Categories Example: *Marketing, Logistics, and Outreach*

I wanted to see your experiences with retention. I have 18 members. Several have never ordered. Several are out of the area and were just helping me get established. But I have have had no new members and very few members repeat ordering. I am trying to figure out strategies. I have a fb page, and I do send out email reminders.

👍 Like 💬 Comment ➦ Share

Quick: how do you dispose of Ice packs?

👍 Like 💬 Comment

As a part of our New Member Gift program we've been sending out Seasonality Charts. Some of you have asked me for a copy -- here is a digital version for now! I'll see what I can do about a print copy. Stay tuned...



Figure A2.7: Group Post Categories Example: Joy, Food, Community, Appreciation



Rachel and I hosted a tasting event today at the Post in Tehaleh (our neighborhood information center/coffee shop). It was a pretty good turn out, already have 3 new members/orders for this week! The big hit of the day was the Cashew Cheese!



Figure A2.8: Group Post Categories Example: Food System Information and Action

Easy ask to support the Coalition of Immokalee Workers in their quest for just and fair working conditions for farmworkers everywhere! Wendy's refuses to join the Fair Food Campaign even when most other fast food and grocery chains have agreed. Give them a call tomorrow!

 **Coalition of Immokalee Workers** Like Page
May 24, 2016

TOMORROW: Call (614)-764-3327 and give [Wendys](#) a piece of your mind on Wednesday ahead of major action outside of Thursday shareholder meeting!



CALL TO ACTION: National Wendy's Call-in Day this Wednesday, 5/25, as farmworkers, allies...

THIS WEEK: Give Wendy's a piece of your mind on Wednesday ahead of major action outside of Thursday shareholder meeting! Three years ago in New York,...

Figures A2.9 – A2.18: Food System Info/Action Categories Examples (accessed July 17, 2017)

Figure A2.9: Food System Info/Action Categories Example - Small-Scale Sustainable Producers

Someone who works for Farmigo needs to go to this! We need more Sonoma products, IMHO 😊




FARM to Table
FARMER / BUYER MIXER
Meet local growers for your food business or organization!
DECEMBER 1ST
SEBASTOPOL, CA

DEC 1
Farmer / Buyer Mixer
Tue 4 PM · Sebastopol Grange #306 · Sebastopo...
julia and Kristi

★ Interested


Heads Up!!! Labeling of food and labeling of 'country of origin' are going away, folks! Know your farmer. Support your local farmer!



March Against Monsanto
January 25, 2016

Like Page

What is wrong with this organization?



USDA is revoking grass-fed beef labeling for the craziest reason.
The USDA is unraveling a decade-old decision to uniformly label grass-fed beef. The move, seen as shocking by many advocacy groups, would mean...

Figure A2.10: Food System Info/Action Categories Example - Local/Regional Food Resources & Policy

Hey Seattle Organizers... can you reach out to the U of W and show them they CAN eat locally! Thanks!



Fewer than 1 in 25 Seattleites can really eat locally

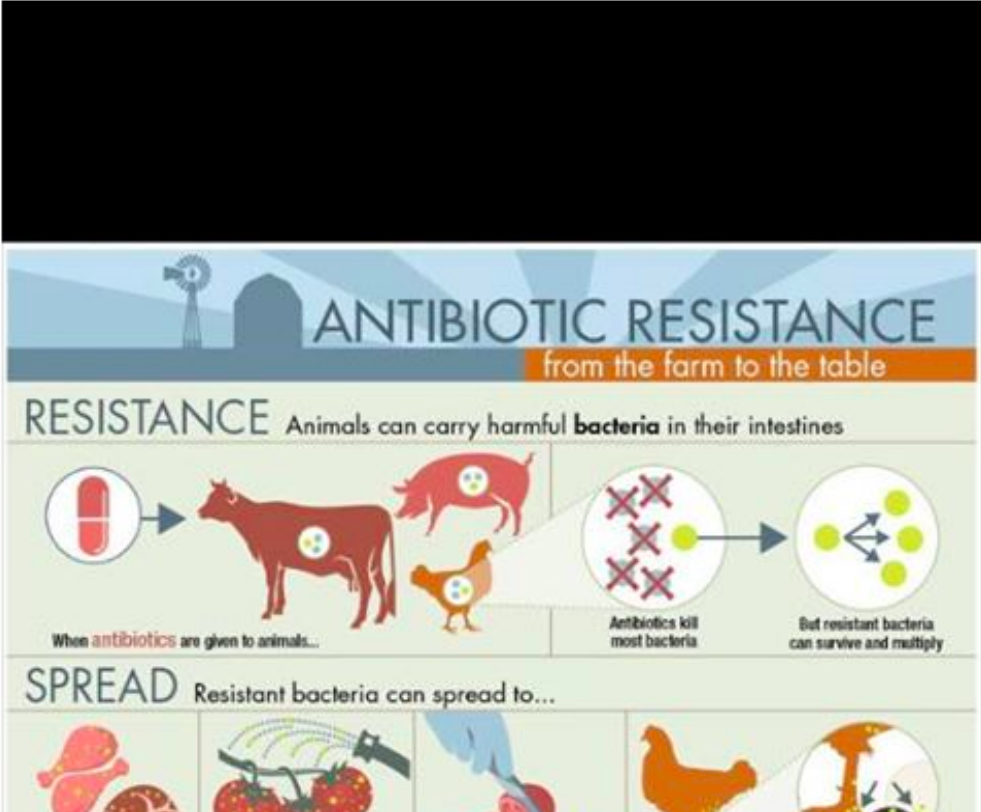
A new study finds that urban crops in Seattle could only feed between 1 and 4 percent of the city's population, even if all viable backyard and public green spaces were converted to growing produce.

SCIENCEDAILY.COM

Like Comment Share

Figure A2.11: Food System Info/Action Categories Example - Toxicity/Public Health

Check out this infographic from the CDC. I don't think most folks understand how eating animals raised in CAFOs directly relates to the growth of superbugs. Support farmers. Not superbugs!



ANTIBIOTIC RESISTANCE
from the farm to the table

RESISTANCE Animals can carry harmful **bacteria** in their intestines

When **antibiotics** are given to animals...


Antibiotics kill most bacteria

But resistant bacteria can survive and multiply

SPREAD Resistant bacteria can spread to...

Figure A2.12: Food System Info/Action Categories Example - Sustainability/ Food Waste

O.M.G., check out what our amazing community member created!!



Gordon Woolley Jr.
March 24, 2016

Sustainably starts within arms reach... Tomatoes, strawberries and kale

Like Comment



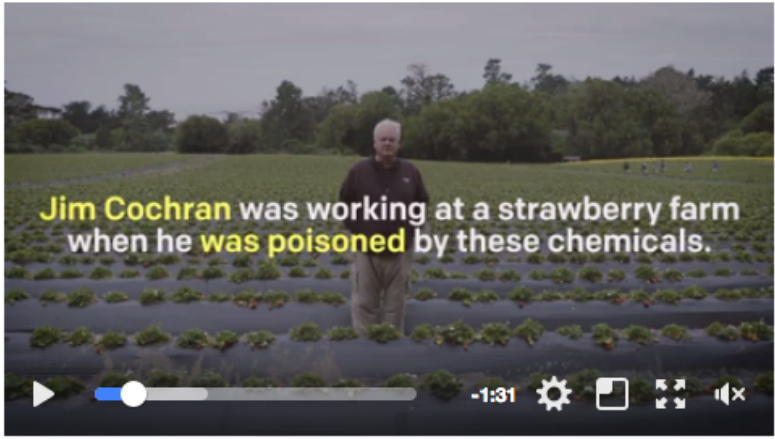
**Multiple Screenings of the Movie:
“JUST EAT IT” ...Across the Seattle
Area | Meaningful Movies Project**

Filmmakers and food lovers Jen and Grant take a closer look at the expansive amount of wasted food...

MEANINGFULMOVIES.ORG

Like Comment Share

Figure A2.13: Food System Info/Action Categories Example - Farm and Food Worker Rights



5,478,437 Views

Earthjustice
March 27, 2016

People told Jim Cochran that no one cared about healthy food and healthy workers. He decided to prove them wrong.

For the full amazing story, check out <http://ejus.tc/25sB9GI>

And take action here if you are inspired! >> <http://ejus.tc/1Rwu5PR>

Like Comment

A really great reason to buy organic. Our choices don't just impact the health of our kids and families, but others who live in farming communities as well.



Organic diet cuts pesticide exposure in children, UC Berkeley study finds

For the peer-reviewed study, researchers at the UC Berkeley Center for Environmental Research and Children's Health analyzed pesticides and their...

Figure A2.14: Food System Info/Action Categories Example - GMOs/GMO Labeling

I was thinking this may be a great way to involve our families this week by encouraging participation in this. ;0)

 **Robyn O'Brien**
April 4, 2016 Like Page

There is something so bittersweet about this campaign out of the UK, calling on our kids to tell their stories.

Our kids have earned the title of "Generation Rx" because of the rates of allergies, autism, ADHD, asthma and so much more.

[#bittersweet](#) [#foodtruth](#) [#rethinkfood](#)



Video Project Gives Kids a Voice in the Debate on GMOs - Robyn O'Brien

A new video project aims to give children a chance to speak up about GMOs and educate other kids in the world about their experiences.

ROBYNOBRIEN.COM | BY ROBYN O'BRIEN

Like Comment

 **Food Revolution Network**
 April 20, 2016

You try to avoid GMO's and you try to eat natural foods, but do you know what's lurking in the foods you eat every day?

Test your knowledge on GMO's and take this quick quiz.



Quiz: GMO's and the American food system.
 Find out more about how GMO's affect our world.

FOOD REVOLUTION SUMMIT [Learn More](#)

Figure A2.15: Food System Info/Action Categories Example - Farms & Farmland Preservation

Neat event coming up hosted by our friends at American Farmland Trust!



American Farmland Trust
 SUSTAINING THE LAND THAT SUSTAINS US

NO FARMS NO FOOD® SPEAKER SERIES

MAY **Event is full! Re-Imagining Local Grain...**
 2 Mon 6 PM · Stone Way Café · Seattle [★ Interested](#)

Farmigo organizers with kids: we just signed up for one these summer garden and farm camps at Seattle Tilth. Really looking forward to it!



Summer Garden & Farm Camps — seattletilth.org

Seattle Tilth has been offering children's garden education for more than two decades. We provide a positive, structured and educational outdoor learning environment. Many kids return year after year to experience the variety of...

SEATTLETILTH.ORG

Like Comment Share

Figure A2.16: Food System Info/Action Categories Example - Food Equity/ Food Justice

I dropped two huge bags of Farmigo ice packs off at [White Pony Express](#) today. They are a wonderful food rescue program here in the East Bay if anyone is looking for a volunteer opportunity. They help me by taking the ice packs off my hands, save them from the landfill and the ice packs get a second life helping to get fresh food to those who need it. Win-Win-Win!!!!
What are you guys doing with yours?!

Like Comment Share

Hey FarmigOrganizers! This event is tomorrow in the ID. Anyone want to go? I'm headed and will report back!



MAR
1

Another Food System is Possible! But ...

Tue 6:30 PM · 321 16th Ave S, Seattle WA 98144

Shared to Seattle Farmigo Organizers

★ Interested



Modern Farmer

January 23, 2016

👍 Like Page

Good news!



Uncle Sam Makes It Easier for Your SNAP Benefits to Go Toward a CSA Share

A recent change in the Farm Bill allows SNAP beneficiaries to go the subscription-agriculture route.

MODERNFARMER.COM

👍 Like

💬 Comment

Figure A2.16: Food System Info/Action Categories Example - Food Transparency/Corporate Power

This is another reason WHY I LOVE FARMIGO! I want to support our local Farmers and Producers as much as possible - and NOT support the Grocery Manufacturers Association, who fought the people of Washington's efforts to label GE foods (grown with the chemical 'glyphosate'). Remember I-522, the initiative we gathered signatures for and put on the ballot in 2013? Should we demand a new vote?

BREAKING



WASHINGTON STATE
ATTORNEY GENERAL CALLS FOR
**\$14 MILLION FINE
FOR MONSANTO
& GROCERY
MANUFACTURERS
ASSOCIATION**
FOR INTENTIONALLY VIOLATING STATE
ELECTION LAW TO DEFEAT GMO LABELING

FoodDemocracyNow.org

#StopMonsanto

#LabelGMOs

Food Democracy Now!

February 19, 2016

Like Page

Breaking: The Washington state's attorney general's office has announced that it is recommending a \$14 million fine for the Monsanto-led Grocery Manufacturers A...

[See More](#)

Sources

- Agyeman, J., & McEntee, J. (2014). Moving the Field of Food Justice Forward Through the Lens of Urban Political Ecology. *Geography Compass*, 8(3), 211-220.
- Alkon, A. H. (2014). Food Justice and the Challenge to Neoliberalism. *Gastronomica: The Journal of Food and Culture*, 14(2), 27-40.
- Allen, P. (2010). Realizing Justice in Local Food Systems. *Cambridge Journal of Regions, Economy and Society*.
- Allen, P., FitzSimmons, M., Goodman, M., & Warner, K. (2003). Shifting Plates in the Agrifood Landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*, 19(1), 61-75.
- Allen, P., & Guthman, J. (2006). From "old school" to "farm-to-school": Neoliberalization from the ground up. *Agriculture and Human Values*, 23(4), 401-415.
- Alvarez, A. (2016). *Fresh Start: Rising consumer income and broadband connections will expand the industry*. IBIS World Industry Report OD5085.
- Anderson, L. (2006). Analytic Autoethnography. *Journal of Contemporary Ethnography*, 35(4), 373-395.
- Anderson, M., & Cook, J. (1999). Community Food Security: Practice in need of theory? *Agriculture and Human Values*, 16(2), 141-150.
- Anguelovski, I. (2015). Alternative Food Provision Conflicts in Cities: Contesting food privilege, injustice, and whiteness in Jamaica Plain, Boston. *Geoforum*, 58, 184-194.
- Anguelovski, I. (2016). Healthy Food Stores, Greenlining and Food Gentrification: Contesting New Forms of Privilege, Displacement and Locally Unwanted Land Uses in Racially Mixed Neighborhoods. *International Journal of Urban and Regional Research*.
- Ash, J., Kitchin, R., & Leszczynski, A. (2015). Digital Turn, Digital Geography? *Digital Geography*.
- Aucoin, M., & Fry, M. (2015). Growing Local Food Movements: Farmers' Markets as Nodes for Products and Community. *The Geographical Bulletin*, 56(2), 61.
- Barnes, T. J. (2011). From Region to Space. *The Wiley-Blackwell Companion to Human Geography*, 146-160.
- Barnett, C., Cloke, P., Clarke, N., & Malpass, A. (2005). Consuming Ethics: Articulating the subjects and spaces of ethical consumption. *Antipode*, 37(1), 23-45.
- Bathelt, H., & Turi, P. (2011). Local, Global and Virtual Buzz: The importance of face-to-face contact in economic interaction and possibilities to go beyond. *Geoforum*, 42(5), 520-529.
- Bauermeister, M. R. (2016). Social Capital and Collective Identity in the Local Food Movement. *International Journal of Agricultural Sustainability*, 14(2), 123-141.
- Baumann, S., Engman, A., & Johnston, J. (2015). Political Consumption, Conventional Politics, and High Cultural Capital. *International Journal of Consumer Studies*, 39(5), 413-421.
- Beagan, B. L., Ristovski-Slijepcevic, S., & Chapman, G. E. (2010). 'People Are Just Becoming More Conscious of How Everything's Connected': 'Ethical' Food Consumption in Two Regions of Canada. *Sociology*, 44(4), 751-769.

- Bell, L. A. (2003). Telling Tales: What stories can teach us about racism. *Race, Ethnicity and Education*, 6(1), 3-28.
- Benford, R. D., & Snow, D. A. (2000). Framing Processes and Social Movements: An overview and assessment. *Annual Review of Sociology*, 611-639.
- Billo, E., & Mountz, A. (2015). For Institutional Ethnography: Geographical approaches to institutions and the everyday. *Progress in Human Geography*, 40(2), 199-220.
- Blecha, J., & Leitner, H. (2014). Reimagining the Food System, the Economy, and Urban Life: New urban chicken-keepers in US cities. *Urban Geography*, 35(1), 86-108.
- Born, B., & Purcell, M. (2006). Avoiding the Local Trap: Scale and Food Systems in Planning Research. *Journal of Planning Education and Research*, 26(2), 195-207.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*: Harvard University Press.
- Bourdieu, P. (1986). The Forms of Capital. In handbook of theory and research for the sociology of education. Edited by: Richardson J: New York: Macmillan.
- Bourdieu, P. (1990). *The Logic of Practice*: Stanford University Press.
- Brown, A. (2002). Farmers' Market Research 1940–2000: An inventory and review. *American Journal of Alternative Agriculture*, 17(04), 167-176.
- Brown, R., & Washton, R. (2015). *American Consumers in 2020* Retrieved from
- Bruce, A. B., & Castellano, R. L. S. (2016). Labor and Alternative Food Networks: Challenges for farmers and consumers. *Renewable Agriculture and Food Systems*, 1-14.
- Bryant, R. L., & Goodman, M. K. (2004). Consuming Narratives: The political ecology of 'alternative' consumption. *Transactions of the Institute of British Geographers*, 29(3), 344-366.
- Burwood-Taylor, L. (2016). Farmigo CEO on Closing Down the Food Delivery Business: "Logistics Overtook Software". *AgFunder*. Retrieved from <https://agfundernews.com/farmigo-ceo-logistics-overtook-software.html>
- Busa, J. H., & Garder, R. (2015). Champions of the Movement or Fair-weather Heroes? Individualization and the (A)politics of Local Food. *Antipode*, 47(2), 323-341.
- Cabrera, S. A., & Williams, C. L. (2014). Consuming for the Social Good: Marketing, consumer citizenship, and the possibilities of ethical consumption. *Critical Sociology*, 40(3), 349-367.
- Cadieux, K. V., & Slocum, R. (2015). What Does it Mean to do Food Justice. *Journal of Political Ecology*, 22(1), 26.
- Cairns, K., Johnston, J., & MacKendrick, N. (2013). Feeding the 'Organic Child': Mothering through ethical consumption. *Journal of Consumer Culture*, 13(2), 97-118.
- Campbell, H. (2009). Breaking New Ground in Food Regime Theory: Corporate environmentalism, ecological feedbacks and the 'food from somewhere' regime? *Agriculture and Human Values*, 26(4), 309-319.
- Carlisle, L. (2015). *Lentil Underground : Renegade farmers and the future of food in America*. New York, New York: New York, New York : Gotham Books.
- Carolan, M. (2016). More than Active Food Citizens: A Longitudinal and Comparative Study of Alternative and Conventional Eaters. *Rural sociology*.
- Census Bureau (2010). *Decennial Census 2010*. U.S. Census Bureau.
- Childe, V. G. (1950). The Urban Revolution. *Town Planning Review*, 21(1), 3.

- Clapp, J. (2003). Transnational Corporate Interests and Global Environmental Governance: Negotiating rules for agricultural biotechnology and chemicals. *Environmental Politics*, 12(4), 1-23.
- Cleveland, D. A., Müller, N. M., Tranovich, A. C., Mazaroli, D. N., & Hinson, K. (2014). Local Food Hubs for Alternative Food Systems: A case study from Santa Barbara County, California. *Journal of Rural Studies*, 35, 26-36.
- Coley, D., Howard, M., & Winter, M. (2011). Food Miles: Time for a re-think? *British Food Journal*, 113(7), 919-934.
- Connelly, S., & Beckie, M. (2016). The Dilemma of Scaling Up Local Food Initiatives: Is social infrastructure the essential ingredient? *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, 3(2), 49-69.
- Cook, I. (1998). "You Want to be Careful You Don't End Up Like Ian. He's All Over the Place": *Autobiography In/of an Expanded Field (the Director's Cut)*: University of Sussex, Geography Laboratory.
- Cope, M. (2005). Coding Qualitative Data. *Qualitative research methods in human geography*, 2, 223-233.
- Courtemanche, C., & Carden, A. (2011). Supersizing Supercenters? The impact of Walmart Supercenters on body mass index and obesity. *Journal of Urban Economics*, 69(2), 165-181.
- CrunchBase. (2017). Farmigo Overview. Retrived from *CrunchBase* https://www.crunchbase.com/organization/farmigo_-_entity
- Daemmrich, A. (2008). Risk Frameworks and Biomonitoring: Distributed Regulation of Synthetic Chemicals in Humans. *Environmental History*, 13(4), 684-694.
- Dean, S. (2017, June 12, 2017). Hungry for Funding? New Avenues for Food Startup Financing are Opening Up. *The Spoon*.
- Degeratu, A. M., Rangaswamy, A., & Wu, J. (2000). Consumer Choice Behavior in Online and Traditional Supermarkets: The effects of brand name, price, and other search attributes. *International Journal of research in Marketing*, 17(1), 55-78.
- DeLind, L. B. (2011). Are Local Food and the Local Food Movement Taking Us Where We Want To Go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values*, 28(2), 273-283.
- Demeritt, D. (2000). The New Social Contract for Science: Accountability, relevance, and value in US and UK science and research policy. *Antipode*, 32(3), 308-329.
- Deutsch, T. (2010). *Building a Housewife's Paradise: Gender, politics, and American grocery stores in the twentieth century*: Univ of North Carolina Press.
- Dittmer, J. (2010). Textual and Discourse Analysis. In D. DeLyser, S. Herbert, S. Aitken, M. Crang, & L. McDowell (Eds.), *The SAGE handbook of qualitative geography* (pp. 274-286).
- Dixon, J., & Richards, C. (2016). On Food Security and Alternative Food Networks: Understanding and performing food security in the context of urban bias. *Agriculture and Human Values*, 33(1), 191.
- Donald, B., Gertler, M., Gray, M., & Lobao, L. (2010). *Re-Regionalizing the Food System?* : Oxford University Press.
- DuPuis, E., Goodman, D., & Harrison, J. (2006). Just Values or Just Value? Remaking the Local in Agro-Food Studies. *Research in Rural Sociology and Development*, 12, 241-268.

- DuPuis, E. M., & Goodman, D. (2005). Should We Go "Home" to Eat?: Toward a reflexive politics of localism. *Journal of Rural Studies*, 21(3), 359-371.
- Eden, S., Bear, C., & Walker, G. (2008). Mucky Carrots and Other Proxies: Problematising the knowledge-fix for sustainable and ethical consumption. *Geoforum*, 39(2), 1044-1057.
- Ellickson, P. B., & Grieco, P. L. E. (2013). Wal-Mart and the Geography of Grocery Retailing. *Journal of Urban Economics*, 75, 1-14.
- Elwood, S. A., & Martin, D. G. (2000). "Placing" Interviews: Location and Scales of Power in Qualitative Research. *The Professional Geographer*, 52(4), 649-657.
- Enright, A. (2015). The E-grocery Explosion. *Internet Retailer*.
- ERS, U. (2014). *Agricultural Productivity in the US*. Retrieved from <http://www.ers.usda.gov/>
- Feagan, R. (2007). The Place of Food: Mapping out the 'local' in local food systems. *Progress in Human Geography*, 31(1), 23-42.
- Fischer-Baum, R. (2014). How Your City's Public Transit Stacks Up. *Fivethirtyeight.com*. Retrieved from <https://fivethirtyeight.com/datalab/how-your-citys-public-transit-stacks-up/>
- Fishman, R. (1987). *Bourgeois Utopias: The rise and fall of suburbia*: Basic books.
- Florida, R., & Mellander, C. (2016). Rise of the Startup City: The changing geography of the venture capital financed innovation. *California Management Review*, 59(1), 14-38.
- Forcum, M. A. (2014). From Silicon Valley to the Kitchen Table: Innovative Online Agriculture & Food Startups and the Law. *Ky. J. Equine Agriculture & Natural Resources Law*, 7, 327.
- Forssell, S., & Lankoski, L. (2017). Navigating the Tensions and Agreements in Alternative Food and Sustainability: A convention theoretical perspective on alternative food retail. *Agriculture and Human Values*, 34(3), 513-527.
- Freudenberg, N., McDonough, J., & Tsui, E. (2011). Can a Food Justice Movement Improve Nutrition and Health? A case study of the emerging food movement in New York City. *Journal of urban health*, 88(4), 623.
- Friedmann, H. (2005). From Colonialism to Green Capitalism: Social movements and emergence of food regimes. *Research in Rural Sociology and Development*, 11, 227-264.
- Friedmann, H., & McNair, A. (2008). Whose Rules Rule? Contested Projects to Certify 'Local Production for Distant Consumers'. *Journal of Agrarian Change*, 8(2, 3), 408-434.
- Galt, R. E. (2013). Placing Food Systems in First World Political Ecology: A review and research agenda. *Geography Compass*, 7(9), 637-658.
- Garner, B. (2015). Communication at Farmers' Markets: Commodifying Relationships, Community and Morality. *Journal of Creative Communications*, 10(2), 186-198.
- Gibson-Graham, J., & Roelvink, G. (2011). The Nitty Gritty of Creating Alternative Economies. *Social Alternatives*, 30(1), 29.
- Gibson-Graham, J. K. (2008). Diverse Economies: Performative practices for other worlds. *Progress in Human Geography*, 32(5), 613-632.

- Gilbert, M. (2010). Theorizing Digital and Urban Inequalities: Critical geographies of 'race', gender and technological capital. *Information, Communication & Society*, 13(7), 1000-1018.
- Gilbert, M. R., & Masucci, M. (2011). *Information and Communication Technology Geographies: Strategies for Bridging the Digital Divide*: Praxis (e) Press.
- Gilbert, M. R., Masucci, M., Homko, C., & Bove, A. A. (2008). Theorizing the Digital Divide: Information and communication technology use frameworks among poor women using a telemedicine system. *Geoforum*, 39(2), 912-925.
- Gold, A. (2016, April 23, 2016). SF Meal-delivery Pioneers Setting a Bigger Table. *San Francisco Chronicle* Retrieved from <http://www.sfchronicle.com/food/article/SF-meal-delivery-pioneers-setting-a-bigger-table-7305820.php>
- Gonzales, A. (2016). The Contemporary US Digital Divide: From initial access to technology maintenance. *Information, Communication & Society*, 19(2), 234-248.
- GoodEggs. (2017). Corporate Website. Retrieved from <https://www.goodeggs.com>
- Goodman, M. K., Maye, D., & Holloway, L. (2010). *Ethical Foodscapes?: Premises, promises, and possibilities*: SAGE Publications Sage UK: London, England.
- Graham, M. (2011). Time Machines and Virtual Portals: The spatialities of the digital divide. *Progress in Development Studies*, 11(3), 211-227.
- Grandclément, C. (2008). *Wheeling One's Groceries Around the Store: The invention of the shopping cart, 1936–1953* (pp. 414-448): Philadelphia, Pennsylvania University Press.
- Guthman, J. (1998). Regulating Meaning, Appropriating Nature: The codification of California organic agriculture. *Antipode*, 30(2), 135-154.
- Guthman, J. (2003). Fast Food/Organic Food: Reflexive tastes and the making of 'yuppie chow'. *Social & Cultural Geography*, 4(1), 45-58.
- Guthman, J. (2008a). Neoliberalism and the Making of Food Politics in California. *Geoforum*, 39(3), 1171-1183.
- Guthman, J. (2008b). Thinking Inside the Neoliberal Box: The micro-politics of agro-food philanthropy. *Geoforum*, 39(3), 1241-1253.
- Guthman, J. (2011). *Weighing In: Obesity, food justice, and the limits of capitalism* (Vol. 32): Univ of California Press.
- Guthman, J., & Mansfield, B. (2012). The Implications of Environmental Epigenetics: A new direction for geographic inquiry on health, space, and nature-society relations. *Progress in Human Geography*.
- Ha, A. (2015, August 5, 2015). Good Eggs Will Shut Down All Operations Outside San Francisco, Lay Off Nearly 140 Employees. *TechCrunch*. Retrieved from <https://techcrunch.com/2015/08/05/good-eggs-layoffs/>
- Haines, J. K. (2016). *Meaningful Innovation: Ethnographic Potential in the Startup and Venture Capital Spheres*. Paper presented at the Ethnographic Praxis in Industry Conference Proceedings.
- Halford, S., & Savage, M. (2010). Reconceptualizing Digital Social Inequality. *Information, Communication & Society*, 13(7), 937-955.
- Harlow, S. (2012). Social Media and Social Movements: Facebook and an online Guatemalan justice movement that moved offline. *New Media & Society*, 14(2), 225-243.

- Harris, E. M. (2010). Eat Local? Constructions of place in alternative food politics. *Geography Compass*, 4(4), 355-369.
- Harrison, J. (2013). Configuring the New 'Regional World': On being caught between territory and networks. *Regional Studies*, 47(1), 55-74.
- Harvey, D. (1990). Between Space and Time: Reflections on the geographical imagination1. *Annals of the Association of American Geographers*, 80(3), 418-434.
- Hasler, J. E. (2014). Contracting for Good: How Benefit Corporations Empower Investors and Redefine Shareholder Value. *Virginia Law Review*, 1279-1322.
- Hayes-Conroy, J., & Hayes-Conroy, A. (2011). Veggies and Visceralities: A political ecology of food and feeling. *Emotion, Space and Society*.
- Herbert, S. (2000). For Ethnography. *Progress in Human Geography*, 24.
- Heynen, N., Kurtz, H. E., & Trauger, A. (2012). Food Justice, Hunger and the City. *Geography Compass*, 6(5), 304-311.
- Hinrichs, C. (2003). The Practice and Politics of Food System Localization. *Journal of Rural Studies*, 19(1), 33-45.
- Hinrichs, C. (2016). Fixing Food with Ideas of "Local" and "Place". *Journal of Environmental Studies and Sciences*, 6(4), 759-764.
- Hinrichs, C., & Allen, P. (2008). Selective Patronage and Social Justice: Local Food Consumer Campaigns in Historical Context. *Journal of Agricultural and Environmental Ethics*, 21(4), 329-352.
- Ho, T. H. (2014). Social Purpose Corporations: The Next Targets for Greenwashing Practices and Crowdfunding Scams. *Seattle J. Soc. Just.*, 13, 935.
- Holloway, L., Kneafsey, M., Venn, L., Cox, R., Dowler, E., & Tuomainen, H. (2007). Possible Food Economies: A methodological framework for exploring food production and consumption relationships. *Sociologia Ruralis*, 47(1), 1-19.
- Holt-Giménez, E., & Altieri, M. A. (2013). Agroecology, Food Sovereignty, and the New Green Revolution. *Agroecology and sustainable Food systems*, 37(1), 90-102.
- Holt-Gimenez, E., & Wang, Y. (2011). Reform or Transformation?: The Pivotal Role of Food Justice in the US Food Movement. *Race/Ethnicity: Multidisciplinary Global Contexts*, 5(1), 83-102.
- Huddart Kennedy, E., Parkins, J. R., & Johnston, J. (2016). Food Activists, Consumer Strategies, and the Democratic Imagination: Insights from eat-local movements. *Journal of Consumer Culture*, 1469540516659125.
- Insights, C. (2017). *The Ag Tech Market Map: 80+ Startups Powering The Future Of Farming And Agribusiness*. Retrieved from <https://www.cbinsights.com/blog/agriculture-tech-market-map-company-list/>
- Jackson, P., Ward, N., & Russell, P. (2006). Mobilising the Commodity Chain Concept in the Politics of Food and Farming. *Journal of Rural Studies*, 22(2), 129-141.
- Jacobs, J. (1961). *The Death and Life of American Cities*.
- Jarosz, L. (2000). Understanding Agri-food Networks as Social Relations. *Agriculture and Human Values*, 17(3), 279-283.
- Jarosz, L. (2008). The city in the country: growing alternative food networks in Metropolitan areas. *Journal of Rural Studies*, 24(3), 231-244.
- Jarosz, L. (2009). Energy, Climate Change, Meat, and Markets: Mapping the coordinates of the current world food crisis. *Geography Compass*, 3(6), 2065-2083.

- Jarosz, L. (2011). Nourishing Women: Toward a feminist political ecology of community supported agriculture in the United States. *Gender, Place & Culture*, 18(3), 307-326.
- Jarosz, L. (2014). Comparing Food Security and Food Sovereignty Discourses. *Dialogues in Human Geography*, 4(2), 168-181.
- Johnston, J. (2007). The Citizen-Consumer Hybrid: Ideological tensions and the case of Whole Foods Market. *Theory and Society*, 37(3), 229-270.
- Johnston, J., & Baker, L. (2005). Eating Outside the Box: FoodShare's Good Food Box and the Challenge of Scale. *Agriculture and Human Values*, 22(3), 313-325. doi:10.1007/s10460-005-6048-y
- Johnston, J., Biro, A., & MacKendrick, N. (2009a). Lost in the Supermarket: The Corporate-Organic Foodscape and the Struggle for Food Democracy. *Antipode*, 41(3), 509-532.
- Johnston, J., Biro, A., & MacKendrick, N. (2009b). Lost in the Supermarket: The Corporate - Organic Foodscape and the Struggle for Food Democracy. *Antipode*, 41(3), 509-532.
- Johnston, J., & Szabo, M. (2010). Reflexivity and the Whole Foods Market Consumer: The lived experience of shopping for change. *Agriculture and Human Values*, 28(3), 303-319.
- Johnston, J., Szabo, M., & Rodney, A. (2011). Good Food, Good People: Understanding the cultural repertoire of ethical eating. *Journal of Consumer Culture*, 11(3), 293-318.
- Joose, S., & Hracs, B. J. (2015). Curating the Quest for 'Good Food': The practices, spatial dynamics and influence of food-related curation in Sweden. *Geoforum*, 64, 205-216.
- Kenney, M. (2011). How Venture Capital Became a Component of the US National System of Innovation. *Industrial and Corporate Change*, 20(6), 1677-1723.
- Kessler, S. (2017). New York's Unrealistic Dream of Rivaling Silicon Valley Should End with Etsy's Troubles. *Quartz*.
- Kiley, B. (2014, June 4, 2014). Is Amazon the Reason Rents Are Going Up? Yes, it is. . *Seattle Stranger*. Retrieved from <http://www.thestranger.com/seattle/is-amazon-the-reason-rents-are-going-up/>
- Kloppenborg, J. R. (2005). *First the Seed: The political economy of plant biotechnology*: Univ of Wisconsin Press.
- Kneafsey, M. (2010). The Region in Food — Important or irrelevant? *Cambridge Journal of Regions, Economy and Society*, rsq012.
- Kolodny, L. (2016, July 27, 2016). Good Eggs Raises \$15 Million to Expand Across the U.S. *TechCrunch*. Retrieved from <https://techcrunch.com/2016/07/27/good-eggs-raises-15-million-to-expand-across-the-u-s/>
- Le Velly, R., & Dufeu, I. (2016). Alternative Food Networks as "Market Agencements": Exploring their multiple hybridities. *Journal of Rural Studies*, 43, 173-182.
- Lehner, M., & Halliday, S. V. (2014). Branding Sustainability: Opportunity and risk behind a brand-based approach to sustainable markets. *ephemera*, 14(1), 13.
- Leszczynski, A. (2013). On the Neo in Neogeography. *Annals of the Association of American Geographers*, 104(1), 60-79.

- Levkoe, C. Z. (2014). The Food Movement in Canada: A social movement network perspective. *Journal of Peasant Studies*, 41(3), 385-403.
- Lim, M. (2012). Clicks, Cabs, and Coffee Houses: Social media and oppositional movements in Egypt, 2004–2011. *Journal of communication*, 62(2), 231-248.
- Livingstone, D. N. (2010). *Putting Science in its Place: Geographies of scientific knowledge*: University of Chicago Press.
- Lucky Jr, W. D. (2008). What Makes Online Grocers Work? A Case Study Analysis of Factors Contributing to Online Grocery Store Profitability.
- Mamen, K. (2007). Facing Goliath: Challenging the impacts of supermarket consolidation on our local economies, communities, and food security. *Oakland, CA: The Oakland Institute*.
- Mares, T. M., & Alkon, A. H. (2011). Mapping the Food Movement: Addressing Inequality and Neoliberalism. *Environment and Society: Advances in Research*, 2(1), 68-86.
- Marquis, C., Klaber, A., & Thomason, B. (2010). B Lab: Building a new sector of the economy. *Harvard Business School Case*, 411047.
- Marsden, T. (2004). The Quest for Ecological Modernisation: Re - Spacing Rural Development and Agri - Food Studies. *Sociologia Ruralis*, 44(2), 129-146.
- Marsden, T., Banks, J., Renting, H., & Van Der Ploeg, J. (2001). The Road Towards Sustainable Rural Development: Issues of theory, policy and research practice. *Journal of Environmental Policy and Planning*, 3(2), 75-83.
- Mayer, H. (2013). Entrepreneurship in a Hub-and-Spoke Industrial District: Firm survey evidence from Seattle's technology industry. *Regional Studies*, 47(10), 1715-1733.
- McCaffrey, S. J., & Kurland, N. B. (2015). Does "Local" Mean Ethical? The U.S. "Buy Local" Movement and CSR in SMEs. *Organization & Environment*, 28(3), 286-306.
- McKenzie, B. (2015). *Who Drives to Work? Commuting by Automobile in the United States: 2013*. Retrieved from <https://www.census.gov/library/publications/2015/acs/acs-32.html>
- McMichael, P. (2011). Food System Sustainability: Questions of environmental governance in the new world (dis) order. *Global Environmental Change*, 21(3), 804-812.
- McNeill, D. (2016). Governing a City of Unicorns: Technology capital and the urban politics of San Francisco. *Urban Geography*, 37(4), 494-513.
- Meijers, N. (2014). Food Delivery Startups Raise \$486M Over Last Year: Funding Hits 5 Year High. *Food+Tech Connect*. Retrieved from <http://foodtechconnect.com/2014/04/28/food-delivery-startups-raise-486m-over-last-year-funding-hits-5-year-high/>
- Merchant, E. F. (2017, May 2, 2017). Techies and Tractors: Silicon Valley's next big thing is saving water. *Grist*. Retrieved from <http://grist.org/business-technology/this-startup-is-using-cutting-edge-tech-to-save-water-on-california-farms>
- Mignot, M. (2015). The Billion Dollar Food Delivery Wars. *TechCrunch*. Retrieved from <https://techcrunch.com/2015/07/11/the-billion-dollar-food-delivery-wars/>

- Mitchell, D. (2016, September 9, 2016). Exclusive: Farmigo sells its Bay Area operation after July's surprise shutdown. *New Food Economy*. Retrieved from <https://newfoodeconomy.com/exclusive-farmigo-sells-its-bay-area-operations-after-julys-surprise-shutdown/>
- Morales, A. (2011). Marketplaces: Prospects for Social, Economic, and Political Development. *Journal of Planning Literature*.
- Morgan, K. (2015). Nourishing the City: The rise of the urban food question in the Global North. *Urban Studies*, 52(8), 1379-1394.
- Morganosky, M. A., & Cude, B. J. (2000). Consumer Response to Online Grocery Shopping. *International Journal of Retail & Distribution Management*, 28(1), 17-26.
- Morrill, R. (2008). *Gentrification, Class, and Growth Management in Seattle, 1990–2000*: University Press of America: Lanham, MD, USA.
- Morrill, R., & Sorruners, P. (2005). Seattle as a Digital City: Unexpected or inevitable? *Workforce*, 9, 0.64.
- Moskin, J. (2016, July 29, 2016). When Community-Supported Agriculture Is Not What It Seems. *The New York Times*. Retrieved from <https://mobile.nytimes.com/2016/07/20/dining/csa-farm-share-community-supported-agriculture.html>
- Murdoch, J., & Miele, M. (2004). A New Aesthetic of Food? Relational reflexivity in the 'alternative' food movement. *Qualities of food*, 156-175.
- Murphy, A. J. (2003). (Re)Solving Space and Time: Fulfilment Issues in Online Grocery Retailing. *Environment and Planning A*, 35(7), 1173-1200.
- Murphy, A. J. (2007). Grounding the Virtual: The material effects of electronic grocery shopping. *Geoforum*, 38(5), 941-953.
- Murphy, M. (2008). Chemical Regimes of Living. *Environmental History*, 13(4), 695-703.
- Myers, J. S., & Sbicca, J. (2015). Bridging Good Food and Good Jobs: From secession to confrontation within alternative food movement politics. *Geoforum*, 61, 17-26.
- Newman, B. J., & Bartels, B. L. (2011). Politics at the Checkout Line: Explaining political consumerism in the United States. *Political Research Quarterly*, 64(4), 803-817.
- Nicholls, W. (2009). Place, Networks, Space: Theorising the geographies of social movements. *Transactions of the Institute of British Geographers*, 34(1), 78-93.
- Ostrom, M., & Donovan, C. (2013). *Summary Report: Farmers Markets and the Experiences of Market Managers in Washington State*. Retrieved from <https://farmersmarketcoalition.org/collaborating-for-farmers-market-research-in-washington-state/>
- Paasi, A. (2002). Place and Region: Regional worlds and words. *Progress in Human Geography*, 26(6), 802-811.
- Paasi, A. (2003). Region and Place: Regional Identity in Question. *Progress in Human Geography*, 27(4), 475-485.
- Paasi, A. (2004). Place and Region: Looking through the prism of scale. *Progress in Human Geography*, 28(4), 536-546.
- Paasi, A. (2009). Regional Geography I. *International encyclopedia of human geography*, 4725-4738.

- Papaoikonomou, E., & Ginieis, M. (2017). Putting the Farmer's Face on Food: Governance and the producer-consumer relationship in local food systems. *Agriculture and Human Values*, 34(1), 53-67.
- Parayil, G. (2003). Mapping Technological Trajectories of the Green Revolution and the Gene Revolution from Modernization to Globalization. *Research policy*, 32(6), 971-990.
- Parkins, W. (2004). Out of Time: Fast subjects and slow living. *Time & Society*, 13(2-3), 363-382.
- Patel, R. (2013). The Long Green Revolution. *The Journal of Peasant Studies*, 40(1), 1-63.
- Piccoli, S., & Harris, E. (2017). New York City Offers Free Lunch for All Public School Students. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/09/06/nyregion/free-lunch-new-york-city-schools.html>
- Plaut, V. C., Markus, H. R., Treadway, J. R., & Fu, A. S. (2012). The Cultural Construction of Self and Well-Being: A tale of two cities. *Personality and Social Psychology Bulletin*, 38(12), 1644-1658.
- Porjes, S. (2014). *Online Food Shopping and Grocery Delivery in the U.S.: Future of Food Retailing*. Retrieved from www.packagedfacts.com
- Porjes, S. (2015). *Shopping for "Local" Foods in the U.S.* Retrieved from www.packagedfacts.com
- Porjes, S. (2016). *Meal Kit Delivery Services in the U.S.* Retrieved from www.packagedfacts.com
- Pottinger, L. (2013). Ethical Food Consumption and the City. *Geography Compass*, 7(9), 659-668.
- Pritchard, W. (1999). Local and Global in Cyberspace: The geographical narratives of US food companies on the Internet. *Area*, 31(1), 9-17.
- Qazi, J. A., & Selfa, T. L. (2005). The Politics of Building Alternative Agro-food Networks in the Belly of Agro-industry. *Food, Culture and Society: An International Journal of Multidisciplinary Research*, 8(1), 45-72.
- Rentfrow, P. J. (2010). Statewide Differences in Personality: Toward a psychological geography of the United States. *American Psychologist*, 65(6), 548.
- Renting, H., Marsden, T. K., & Banks, J. (2003). Understanding Alternative Food Networks: Exploring the role of short food supply chains in rural development. *Environment and Planning A*, 35(3), 393-411.
- Renting, H., Schermer, M., & Rossi, A. (2012). Building Food Democracy: Exploring civic food networks and newly emerging forms of food citizenship. *International Journal of Sociology of Agriculture and Food*, 19(3), 289-307.
- Reynolds, K. (2015). Disparity Despite Diversity: Social injustice in New York City's urban agriculture system. *Antipode*, 47(1), 240-259.
- Roberts, E., Farrington, J., & Skerratt, S. (2015). Evaluating New Digital Technologies Through a Framework of Resilience. *Scottish Geographical Journal*, 131(3-4), 253-264.
- Robinson, L., Cotten, S. R., Ono, H., Quan-Haase, A., Mesch, G., Chen, W., . . . Stern, M. J. (2015). Digital Inequalities and Why They Matter. *Information, Communication & Society*, 18(5), 569-582.

- Rose, N., & Miller, P. (2013). *Governing the Present: Administering economic, social and personal life*: Polity.
- Rosset, P. (2006). *Food is Different: Why the WTO should get out of agriculture*: Zed Books.
- Rossi, U., & Di Bella, A. (2017). Startup Urbanism: New York, Rio de Janeiro and the global urbanization of technology-based economies. *Environment and Planning A*.
- Sage, C. (2003). Social Embeddedness and Relations of Regard: Alternative 'good food' networks in south-west Ireland. *Journal of Rural Studies*, 19(1), 47-60.
- Sahlman, W. A. (1990). The Structure and Governance of Venture-Capital Organizations. *Journal of Financial Economics*, 27(2), 473-521.
- Schlosser, E. (2012). *Fast Food Nation: The dark side of the all-American meal*: Houghton Mifflin Harcourt.
- Schnell, S. M. (2013). Food Miles, Local Eating, and Community Supported Agriculture: Putting local food in its place. *Agriculture and Human Values*, 30(4), 615-628.
- Schwanen, T., Kwan, M. P., & Ren, F. (2014). The Internet and the Gender Division of Household Labour. *The Geographical Journal*, 180(1), 52-64.
- Scott, D. (2011). The Technological Fix Criticisms and the Agricultural Biotechnology Debate. *Journal of Agricultural and Environmental Ethics*, 24(3), 207-226.
- Selfa, T., & Qazi, J. (2005). Place, Taste, or Face-to-Face? Understanding Producer-Consumer Networks in "Local" Food Systems in Washington State. *Agriculture and Human Values*, 22(4), 451-464.
- Shah, D. V., McLeod, D. M., Friedland, L., & Nelson, M. R. (2007). Introduction: The Politics of Consumption/ The Consumption of Politics. *The Annals of the American Academy of Political and Social Science*, 611, 6-15.
- Shields, M. (2015). Women's Participation in Seattle's High-Tech Economy.
- Simpson, C. (2017, March 7, 2017). Who's Benefiting From The Billions Invested In Food Startups? Not Middle America. *New Food Economy*. Retrieved from <http://newfoodeconomy.com/whos-benefiting-billions-invested-food-startups-not-middle-america/>
- Slocum, R. (2011). Race in the Study of Food. *Progress in Human Geography*, 35(3), 303-327.
- SlowFoodUSA. (2017). The Slow Food Manifesto. Retrieved from <https://www.slowfoodusa.org/manifesto>
- Smiley, L. (2015). The Shut-In Economy. *Medium.com*. Retrieved from <https://medium.com/matter/the-shut-in-economy-ec3ec1294816>
- Sommerfeld, J. (2005, February 13, 2005). Our Social Dis-ease: Beyond the smiles, the Seattle Freeze is on *The Seattle Times*. Retrieved from <http://www.seattletimes.com/pacific-nw-magazine/our-social-dis-ease-beyond-the-smiles-the-seattle-freeze-is-on/>
- Spigel, B. (2013). Bourdieuan Approaches to the Geography of Entrepreneurial Cultures. *Entrepreneurship & Regional Development*, 25(9-10), 804-818.
- Starr, A. (2010). Local Food: A Social Movement? *Cultural Studies? Critical Methodologies*, 10(6), 479-490.

- Starr, M. A. (2009). The Social Economics of Ethical Consumption: Theoretical considerations and empirical evidence. *The Journal of Socio-Economics*, 38(6), 916-925.
- Stecker, M. J. (2016). Awash in a Sea of Confusion: Benefit Corporations, Social Enterprise, and the Fear of “Greenwashing”. *Journal of Economic Issues*, 50(2), 373-381.
- Stewart, A. (2017, Mar 20, 2017). Housing Study Shows Why Bay Area Tech Workers Are Coming To Seattle. *Puget Sound Business Journal*. Retrieved from <http://www.bizjournals.com/seattle/news/2017/03/20/housing-study-bay-area-tech-workers-move-seattle.html>
- Stone, M. (2017, Apr. 11, 2017). Amazon is Taking Over Seattle — And residents are calling it 'Amageddon'. *Business Insider*. Retrieved from <http://www.businessinsider.com/amazon-is-taking-over-seattle-2017-4>
- Stuart, D. (2008). The Illusion of Control: Industrialized agriculture, nature, and food safety. *Agriculture and Human Values*, 25(2), 177-181.
- Stuart, D., & Woroosz, M. R. (2011). The Myth of Efficiency: Technology and Ethics in Industrial Food Production. *Journal of Agricultural and Environmental Ethics*, 1-26.
- Stubbs, W. (2016). Sustainable Entrepreneurship and B Corps. *Business Strategy and the Environment*.
- Szasz, A. (2007). *Shopping Our Way to Safety: How we changed from protecting the environment to protecting ourselves*: U of Minnesota Press.
- Thorsøe, M., & Kjeldsen, C. (2015). The Constitution of Trust: function, configuration and generation of trust in alternative food networks. *Sociologia Ruralis*.
- Thrift, N., Driver, F., & Livingstone, D. (1995). The Geography of Truth. *Environment and Planning D*, 13, 1-1.
- Tolbert, L. C. (2009). The Aristocracy of the Market Basket: Self Service Food Shopping in the New South. *Food Chains: From farmyard to shopping cart*, 179-195.
- Trauger, A. (2004). 'Because They Can Do the Work': Women farmers in sustainable agriculture in Pennsylvania, USA. *Gender, Place & Culture*, 11(2), 289-307.
- USDA. (2017). FAQs. Retrieved from: <https://www.ers.usda.gov/topics/>
- Vara, V. (2016, May 27, 2016). The Tech Boom's Second Cities. *The New Yorker*.
- Venn, L., Kneafsey, M., Holloway, L., Cox, R., Dowler, E., & Tuomainen, H. (2006). Researching European 'Alternative' Food Networks: Some methodological considerations. *Area*, 38(3), 248-258.
- Vogel, S. A. (2008). From 'The Dose Makes the Poison' to 'The Timing Makes the Poison': Conceptualizing Risk in the Synthetic Age. *Environmental History*, 13(4), 667-673.
- Vos, J. (2009). Actions Speak Louder Than Words: Greenwashing in corporate America. *Notre Dame Journal of Ethics & Public Policy*, 23, 673.
- Wajcman, J. (2008). Life in the Fast Lane? Towards a sociology of technology and time. *The British journal of sociology*, 59(1), 59-77.
- Wald, N., & Hill, D. P. (2016). 'Rescaling' Alternative Food Systems: From food security to food sovereignty. *Agriculture and Human Values*, 33(1), 203-213.

- Walker, R. E., Keane, C. R., & Burke, J. G. (2010). Disparities and Access to Healthy Food in the United States: A review of food deserts literature. *Health & place, 16*(5), 876-884.
- Warf, B. (2001). Segueways Into Cyberspace: Multiple geographies of the digital divide. *Environment and Planning B, 28*(1), 3-20.
- Warf, B. (2013). Contemporary Digital Divides in the United States. *Tijdschrift voor economische en sociale geografie, 104*(1), 1-17.
- Warf, B. (2015). Global Cities, Cosmopolitanism, and Geographies of Tolerance. *Urban Geography, 36*(6), 927-946.
- Watson, A., & Till, K. E. (2010). Ethnography and Participant Observation. *The SAGE handbook of qualitative geography, 121-137*.
- Whatmore, S. (2009). Mapping Knowledge Controversies: Science, democracy and the redistribution of expertise. *Progress in Human Geography, 33*(5), 587-598.
- Whatmore, S., & Thorne, L. (1997). Alternative Geographies of Food. In D. Goodman & M. Watts (Eds.), *Globalising Food: Agrarian Questions and Global Restructuring*. London: Routledge.
- White III, T. J. (2014). Benefit Corporations: Increased Oversight through Creation of the Benefit Corporation Commission. *Journalis Legis., 41*, 329.
- Willis, M. M., & Schor, J. B. (2012). Does Changing a Light Bulb Lead to Changing the World? Political action and the conscious consumer. *The Annals of the American Academy of Political and Social Science, 644*(1), 160-190.
- Wilson, A. D. (2013). Beyond Alternative: Exploring the Potential for Autonomous Food Spaces. *Antipode, 45*(3), 719-737.
- Wrigley, N., Lowe, M., & Currah, A. (2013). Retailing and E-Tailing. *Urban Geography, 23*(2), 180-197.
- Zimmerman, H. (2015). Caring for the Middle Class Soul: Ambivalence, Ethical Eating and the Michael Pollan Phenomenon. *Food, Culture and Society: An International Journal of Multidisciplinary Research, 18*(1), 31-50.
- Zitcer, A. (2015). Food Co-ops and the Paradox of Exclusivity. *Antipode, 47*(3), 812-828.