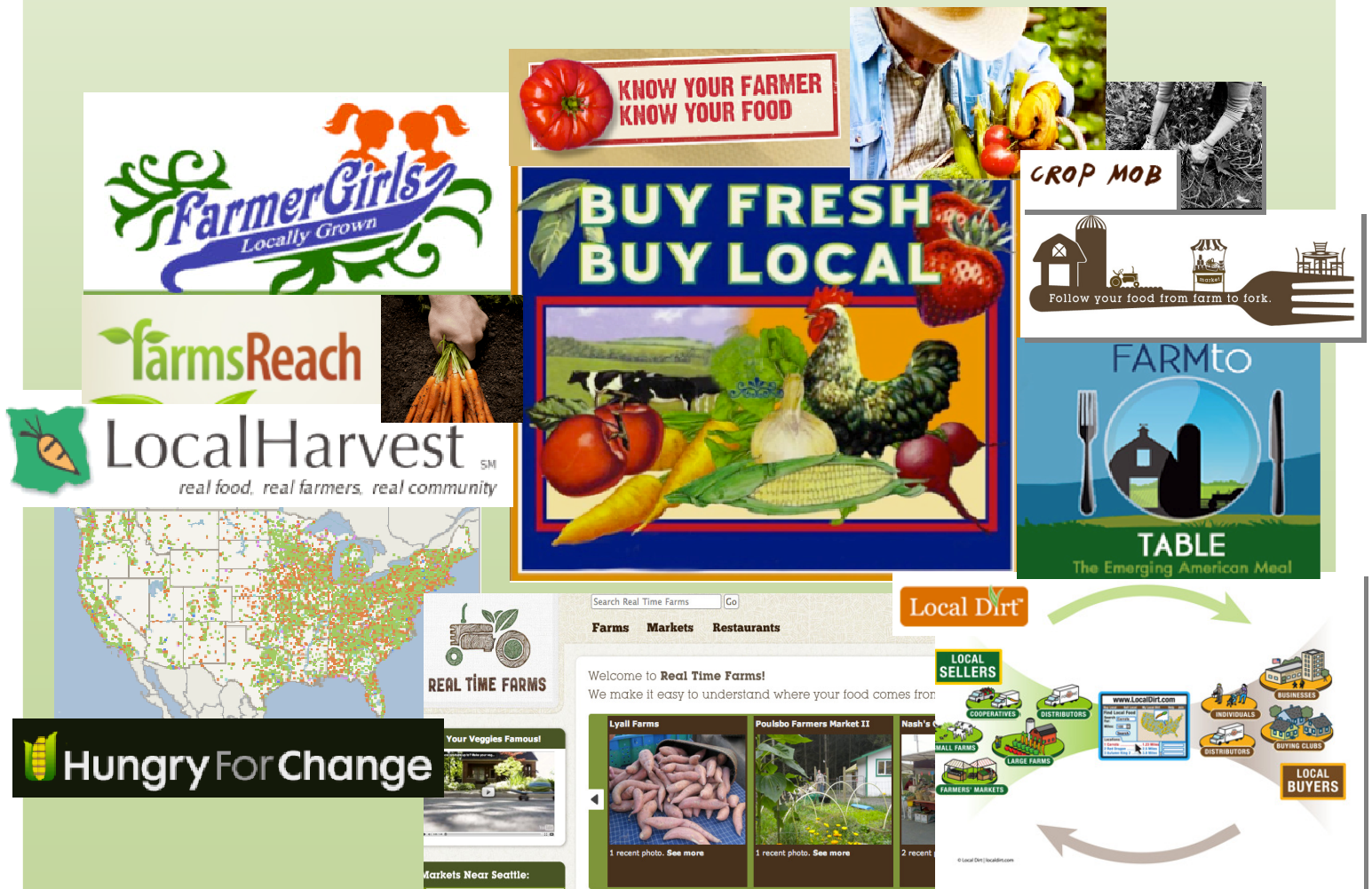


# Our Food: Our Future

How web 2.0 is helping local food move from niche market to mainstream

by Caitlin Ochs



**Introduction:**

A slew of recent investigative books, news articles and documentary films raising questions about the safety and sustainability of our food system have called public attention to problems with industrial food and generated national conversation. Despite strong debate over how we should change our food system and what the future of U.S. agriculture should look like, there is widespread acknowledgement that changes are necessary. We've succeeded at producing more food more cheaply, but are less healthy. We've built a food system that is incredibly efficient, but it relies on farming practices that are unsustainable in the long run and petrochemicals that are harmful to both our health and environment.

The growth of local food networks in recent years suggests a promising alternative. If rebuilt, these networks could change our food system from sourcing globally from factory farms to sourcing locally from hundreds of smaller farms. It is an opportunity to design our food system to better support American farmers by creating more direct sales opportunities, to deliver fresher healthier food to more communities and to use fewer resources by shortening shipping and transportation routes. But for local food to be a realistic alternative, these networks need to be built up and expanded and smaller farmers need to be incorporated as suppliers.

At its core, the local food movement is an effort to rebuild the community relationships and infrastructure that have historically existed around food. This requires growers, processors, distributors and regulators to collaborate and organize. Beyond this, local and regional food networks depend on support from

their communities. For them to succeed, individuals need to take more active roles as customers, donors, volunteers or political advocates for farmers.

One of the most effective tools being used to bring stakeholders together, aggregate information and help the local food movement overcome barriers is web 2.0.<sup>1</sup> Online communication is the fastest, most efficient means to inform, organize and build relationships. Databases are enabling people to easily locate local growers and plug into their regional food systems. Social networks are allowing farmers to directly connect, share information, and have conversations with customers. Websites with software designed to help customers and farmers manage orders online are streamlining the ordering process and helping small farmers scale up to wholesale. Online marketplaces are providing small farmers join together by providing spaces where they can collectively list products. This collaboration allows them to combine resources to meet higher volume orders and expand their sales.

Collectively these tools are informing Americans about their food and farmers, helping smaller growers connect with larger buyers, aggregating information about local food and making it easily accessible to buyers, farmers and consumers, and providing crucial organizational support. Without the relationships, communities and organization happening through the social networks, blogs,

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<sup>1</sup> Web 2.0 is a term that came into use in 2004 to describe a change in how developers were creating software for the web. There is argument within the tech community over whether “web 2.0” truly marks a shift in the Internet, but changes in information flows online are significant and are usually what proponents highlight. As Mr. Toland describes the change, “In the old model, data was posted on websites, and users simply viewed or downloaded content. With web 2.0, users increasingly have more input in the nature and scope of content. In some cases exert real-time control over it. This difference is huge to understand. It’s no longer about being a destination, but about participating in a conversation.” Web 2.0 can take many formats—blogs, comment features on news articles, social networks like YouTube, Facebook and Twitter are just a few examples.

databases, online ordering systems and other platforms that comprise web 2.0, coordinating these networks would be time consuming and inefficient and it's unlikely that buyers would shift their purchases to smaller local producers or that regional food networks would grow to become capable of supporting a significant portion of agricultural sales. Without growth, it is unrealistic to consider local food networks a serious alternative to our current food system. "Go local" is a catchy slogan, but making it reality requires effective systems, not romanticized ideals.

### **Methodology:**

As one of the first studies of how online communication intersects with agriculture, this thesis focuses on how web 2.0 is helping the local food movement overcome key barriers and become a viable alternative to our current food system.

Drawing from USDA reports, speeches, blogs, webinars, websites, Facebook pages, scholarly literature, scientific reports and interviews with farmers, communications specialists, and leaders that created organizations to support local food; this study is a useful guide for farmers, individuals and organizations involved with the local food movement who are interested in learning ways to use the web more effectively as a tool to connect, communicate and organize.

### **The state of our agricultural system:**

Historical context is useful to understand problems with our current food system and the changes that occurred in both how we produce and distribute our food. What we call conventional agriculture today holds little resemblance to the way we've grown food for most of human history.<sup>2</sup> Starting with the post World War

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<sup>2</sup> Diamond, Jared M. *Guns, Germs, and Steel: the Fates of Human Societies*. New York: Norton, 2005. Print.

II industrial boom and continuing with government incentives that embraced “get big or get out” policies in the 1970s, farmers adopted new technology and farming practices to meet the challenge placed before them; grow more food for a quickly growing population and do it cheaply.<sup>3</sup> As American farms industrialized, a system based on smaller farms and diverse crop rotations transitioned to one characterized by mechanization, vast monocultures and heavy petrochemical inputs.<sup>4</sup>

Industrialization and technological innovation made our food much cheaper. Last year, the average American spent about 9% of their total income on food.<sup>5</sup> In the 1930s, Americans on average spent closer to 25% of their total income on food. Industry and technology also boosted yields. In the early 1900s the average American farmer produced enough to feed 12 people.<sup>6</sup> Today the average farmer feeds 155 people.<sup>7</sup> These changes have impacted how people live. In 1900, 40 percent of Americans lived on farms, today that number has dwindled to less than 2 percent.<sup>8</sup> On a deeper level, Americans’ relationship to food and agriculture fundamentally changed. As Americans moved away from farms, and regional distribution systems disintegrated with the industrialization of our food system, the agricultural community and the general public grew disconnected. Unless they

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<sup>3</sup> Soth, Lauren. "The Grain Export Boom: Should It Be Tamed?" *Foreign Affairs* Spring 59.4 (1981): 900. *JSTOR*. Web. 10 Feb. 2010. <<http://www.jstor.org.proxyau.wrlc.org/stable/20040827>>.

<sup>4</sup> Pollan, Michael. *The Omnivore's Dilemma: a Natural History of Four Meals*. New York: Penguin, 2006: 45. Print.

<sup>5</sup> "Food CPI and Expenditures: Table 7." *USDA Economic Research Service - Home Page*. Web. 11 Jan. 2010. <<http://www.ers.usda.gov/briefing/CPIFoodandExpenditures/Data/table7.htm>>.

<sup>6</sup> Pollan, Michael. *The Omnivore's Dilemma*. (p.34)

<sup>7</sup> Merrigan, Kathleen. "An Introduction to Know Your Farmer, Know Your Food." National Association of Agricultural Journalists Presentation. Washington DC. 22 Feb. 2010. Speech.

<sup>8</sup> Merrigan, Kathleen. "An Introduction to Know Your Farmer, Know Your Food." National Association of Agricultural Journalists Speech April 26, 2010. (p.1) <[www.usda.gov/documents/KYF2\\_before\\_ag\\_journalists.pdf](http://www.usda.gov/documents/KYF2_before_ag_journalists.pdf)>.

choose to, Americans don't spend time thinking about where their food comes from because they aren't involved with its production.<sup>9</sup>

Books like Eric Schlosser's *Fast Food Nation* and Michael Pollan's *In Defense of Food* and documentary films like *FRESH* (2009), *Food Inc.* (2009), *Food Fight* (2009) and *Supersize Me* (2004) have helped renew public interest in food and agriculture. Examining shortfalls of our food system, these investigative accounts point to environmental destruction caused by industrialization and concentrated production, and highlight links between diets of highly processed foods to chronic diseases such as diabetes and obesity.

Health indicators support arguments that Americans are less healthy. In the last 30 years childhood obesity rates in the U.S. have tripled and it's likely that one in three children born after 2000 will develop diabetes.<sup>10</sup> In 2003, the U.S. Surgeon General warned Americans about obesity, which he called a, "health crisis affecting every state, every city, every community and every school...the fastest-growing cause of disease and death in America."<sup>11</sup> Two-thirds of American adults are overweight or obese and national health statistics indicate rates are increasing.<sup>12</sup> While many factors lead to these chronic diseases, they are closely linked to diet. Former FDA Commissioner David Kessler recently released a book charging food

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<sup>9</sup> Vileisis, Ann. *Kitchen Literacy: How We Lost Knowledge of Where Food Comes from and Why We Need to Get It Back*. Washington: Island/Shearwater, 2008: 168. Print.

<sup>10</sup> The White House. The Office of the First Lady. *First Lady Michelle Obama Launches Let's Move*:. 9 Feb. 2010. Web. 22 Feb. 2010. <<http://www.whitehouse.gov/the-press-office/first-lady-michelle-obama-launches-lets-move-americas-move-raise-a-healthier-generation>>.

<sup>11</sup> "The Obesity Crisis in America", Subcommittee on Education Reform Committee on Education and the Workforce United States House of Representative Cong. (2003) (testimony of Richard H. Carmona, M.D., M.P.H., F.A.C.S. Surgeon General)  
<<http://www.surgeongeneral.gov/news/testimony/obesity07162003.htm>>.

<sup>12</sup> "National Center for Health Statistics: Health Data Interactive." *Centers for Disease Control and Prevention*. Web. 5 Apr. 2010. <<http://www.cdc.gov/nchs/hdi.htm>>.

processors with purposefully designing foods to have high ratios of sugar, fat and salt that are addictive and unhealthy.<sup>13</sup> In 2009 first lady Michelle Obama launched *Let's Move*, a national campaign that calls on food processors to create healthier, more nutritious foods and champions local food as a healthier alternative.<sup>14</sup>

There is also substantial evidence documenting the negative impacts that industrial farming has on our environment. Chemicals helped us boost production and decreased the need for labor, but studies have linked pesticides and fertilizers sprayed on crops to cancer and contaminated waterways.<sup>15</sup> Monocultures and petrochemicals allow crops to be grown on a massive scale, but in the long-term they lead to super bugs, decrease soil fertility and erode nutrient-rich topsoil.<sup>16</sup>

Our food system excels at what we built it to do: maximize efficiency and scale up production to feed a growing population at the lowest possible price. But it has not been the solution many envisioned. A growing number of voices are questioning its long-term sustainability and demanding alternatives.

### **Defining Local Food**

At the launch of Know Your Farmer Know Your Food, a USDA initiative to address the disconnect between Americans and the 1.4 percent of the working population who produce their food, USDA Undersecretary Kathleen Merrigan

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<sup>13</sup> Kessler, David. *The End of Overeating: Taking Control of the Insatiable American Appetite*. 2009 Rodale Books Printed in USA.

<sup>14</sup> Remarks by First Lady at Healthy Weight Announcement Press Conference. 17 May 2010. <http://www.whitehouse.gov/the-press-office/remarks-first-lady-healthy-weight-announcement>

<sup>15</sup> Kimbrell, Andrew. "Seven Deadly Myths of Industrial Agriculture." *The Fatal Harvest Reader* (Washington, D.C.: Island Press, 2002) pp. 3-36: (p.11).

<sup>16</sup> (Altieri and Davis 45; Reganold et. al, 370). Altieri, Deborah K. Letourneau and James R. Davis. "Developing Sustainable Agroecosystems." *BioScience*, Vol. 33, No. 1 (Jan., 1983), pp. 45-49; Reganold, John, Lloyd F. Elliott and Yvonne Unger. "Long-term effects of organic and conventional farming on soil erosion." *Nature* Vol 330. November 26, 1987; p. 370-372.

discussed the explosion of public interest in buying locally.

“This morning I Googled the following terms...President Obama, 65 million hits...Lady Gaga, 82 million hits...local food 181 million hits. Local is the strongest food trend in decades. Clearly people are interested in reconnecting with American agriculture.”<sup>17</sup>

The USDA sees this renewed public interest in food and nutrition as an opportunity to forge stronger links between Americans and their farmers and create economic opportunities for smaller farms. To make it easier for farmers and the public to connect, they launched a website called Know Your Farmer, Know Your Food, which features a range of tools and information specifically targeted to small farmers and Americans interested in local food.<sup>18</sup>

But what constitutes local food? “Local” is often associated with organic and sustainable agriculture, but in reality the thousands of small to mid sized farms participating in local and regional food networks are using a variety of farming practices. In the U.S. there is no legal definition of local food and people have developed different interpretations of the term.<sup>19</sup> A USDA report attempting to more clearly define it gathered information from hundreds of studies on local food conducted by universities, nonprofits and government institutions. Researchers found no agreement over a geographic definition of local, (distances ranged from 100 miles to anywhere within the same state that products were produced). They

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<sup>17</sup> Merrigan, Kathleen. Introduction to Know your Farmer, Know your Food. (p.4) <[www.usda.gov/documents/KYF2\\_before\\_ag\\_journalists.pdf](http://www.usda.gov/documents/KYF2_before_ag_journalists.pdf)>.

<sup>18</sup><http://www.usda.gov/wps/portal/usda/knowyourfarmer?navid=KNOWYOURFARMER>

<sup>19</sup> Durham, Leslie. Encyclopedia of Organic, Sustainable and Local Food. 2010. (p.23)



did, however, find that “local” was often defined using marketing arrangements—ie; farmers selling directly to consumers or businesses within the region.<sup>20</sup>

Another distinction the report made was that the local food movement arose from several separate but related movements, which has led to different perceptions of what defines local food.<sup>21</sup> Advocates concerned with environmental issues base their definition on sustainability and define local food in terms of energy efficiency, food miles and ecological farming practices. Advocates concerned with labor rights define local food by short supply chains and fair on-farm working conditions. Advocates concerned with human health define local in terms of food security and expanded access to fresh produce in lower income communities.<sup>22</sup> For other advocates, local is defined in economic terms, measured in terms of its impact on rural economies, small farmers and the number of jobs it creates.<sup>23</sup> These perspectives show that the local food movement is far from monolithic, but it also does not lack coherence. The wide range of issues local advocates are working to address focus on areas where our current food system is failing. Recognizing this common ground could help advocates develop a more coherent definition of “local,” which would strengthen the movement by clarifying its values and identifying more concretely what it hopes to change.

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<sup>20</sup> Martinez, Steve, Michael Hand, Michelle Da Pra, Katherine Ralston, Travis Smith, Stephen Vogel, Shellye Clark, Luanne Lohr, Sarah Low, and Constance Newman. *Local Food Systems: Concepts, Impacts and Issues*. Publication. USDA Economic Research Service, May 2010.  
<<http://www.ers.usda.gov/publications/err97/>>

<sup>21</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.2)

<sup>22</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.4)

<sup>23</sup> "Remarks by Tom Vilsack Secretary of the U.S. Department of Agriculture." *USDA Newsroom*. 31 Aug. 2010. Web. 5 Sept. 2010.  
<<http://usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2010/09/0436.xml>>.

To assess the progress of the local food movement as a whole, this paper defines “local food” in marketing terms as direct sales by farmers to consumers, institutions, or businesses within the same region of the United States. This could be through farmers markets, farm stands, online markets or community supported agriculture networks (CSAs). It is important to note that this definition makes no distinction about scale or manner of on-farm production. Characteristically farms participating in local food networks are small,<sup>24</sup> but large farms are not excluded from this definition of local.

### **A Growing Movement:**

Strong growth in public demand for local food and the channels it is sold through indicate that local food networks are developing a larger presence. From 1997 to 2007 direct-to-consumer food marketing, (sales by farmers to individuals), grew 104.7 percent.<sup>25</sup> During the same time period growth in overall agricultural sales grew 46.7 percent. A 2006 national survey found that 4 out of 5 Americans “occasionally” or “always” purchased produce directly from local growers.<sup>26</sup>

Farmers are working to meet growing public demand. In the past fifteen years, the number of farmers markets in the U.S. jumped from roughly 1,000 operational

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<sup>24</sup> The USDA defines a small farm as those making less than \$250,000 in annual sales. Hoppe, Robert A., Penni Korb, Erik J. O'Donoghue, and David E. Banker. "Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition." *USDA Economic Research Service*. June 2007. Web. 09 Feb. 2010. <<http://www.ers.usda.gov/Publications/EIB24/>>.

<sup>25</sup> Diamond, Adam and Ricardo Soto. "Facts on Direct-to-Consumer Food Marketing: Incorporating Data from the 2007 Census of Agriculture." *USDA Agricultural Marketing Service*. May 2009. (p.3) <<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateJ&page=WFMPublications>>.

<sup>26</sup> (61, Kneeling-Bond). Keeling-Bond, J., D. Thilmany, and C. Bond. 2009. "What Influences Consumer Choice of Fresh Produce Purchase Location?" *Journal of Agricultural and Applied Economics*, 41(1):61-74.

markets to over 6,000.<sup>27</sup> CSAs are also expanding. In 1986, there were two CSA's nationwide. As of 2010 there are 3,229.<sup>28</sup> Collectively these CSAs serve 390,000 American households.<sup>29</sup> Partnerships between farmers and schools in their communities are another growing channel for regional food networks. From 1996-1997 there were two established farm-to-school programs nationwide, in 2009 there were 2,095 programs.<sup>30</sup>

Despite substantial growth, local food remains tiny in comparison to the overall landscape of U.S. agriculture. Only .08 percent of total agricultural sales are directly from farmers to individuals.<sup>31</sup> To expand access to locally sourced food and transition it from a niche market to one that accounts for a significant portion of agricultural sales, the local food movement needs to meet significant challenges. Unreliable customer bases, inaccessible markets and problems scaling up production to meet higher volume orders were cited by a recent USDA report as key barriers blocking both entry into and expansion of local food markets.<sup>32</sup>

### **Barrier 1: Unreliable Customers**

Establishing a reliable customer base is one of the biggest uncertainties for small farmers. With the majority of Americans living outside of rural areas, connecting and maintaining relationships can be time consuming and logistically difficult. As a solution,

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<sup>27</sup>"Numbers of Farmers Markets 1994-2010." *USDA Economic Research Service*. USDA AMS - Marketing Services Division, June 2007. Web. 09 Sept. 2010. <<http://www.ers.usda.gov/Publications/EIB24/>>.

<sup>28</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.iii)

<sup>29</sup> Barnett, Erin. "LocalHarvest News - January." *Local Harvest*. 28 Jan. 2010. Web. 10 Mar. 2010. <<http://www.localharvest.org/newsletter/20100128/>>.

<sup>30</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.iii)

<sup>31</sup> (Diamond and Soto, 8) Diamond, Adam and Ricardo Soto. "Facts on Direct-to-Consumer Food Marketing: Incorporating Data from the 2007 Census of Agriculture." USDA Agricultural Marketing Service. May 2009.

<sup>32</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.23)

farmers are increasingly using social networks to keep customers updated and answer questions about products. By using blogs, tweets and Facebook posts, YouTube videos and websites to communicate with the public, farmers are making stronger connections with their surrounding communities and overcoming the urban-rural divide.

***Building relationships:*** Facebook and Twitter enable farmers to share stories and quickly deliver important messages and information directly to customers. Dan Toland, a Communications Specialist for the Ohio Farm Bureau, has spent the past three years studying how social networks can help agriculture by better connecting consumers with farmers.<sup>33</sup>

“The web isn’t just a place for information, it’s a place for conversation. Our goal is conversations between farmers and consumers...We don’t differentiate between big farms, or small farms...all farmers make up the 2 percent of the population responsible for raising fuel and fiber for America. It’s about getting the highest number of our farmers telling their stories...we need them to start talking about what they do...perceptions of agriculture are changing and people need to start talking and understand the issues.”<sup>34</sup>

For Mr. Toland, it’s not about promoting a certain type of agriculture. It’s about getting the agricultural community to engage with consumers and talking about the issues and challenges of the farming community.

And ‘consumers,’ or the general public are certainly online. Just under half the total population—about 150 million Americans are on Facebook.<sup>35</sup> Considering that the

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<sup>33</sup> Mr. Toland has a B.A. in Agricultural Communication from Ohio State University and has worked as a Communications Specialist for the Ohio Farm Bureau since May 2007.

<sup>34</sup> Toland, Dan. "The Role of Social Media in Agriculture." Telephone interview. 10 July 2010. Communication Specialist for Ohio Farm Bureau Federation.

<sup>35</sup> This statistic was calculated using numbers provided by Facebook. (500 million total users, less 70% which are based outside the U.S., divided by the current U.S. population, which according to the most recent census was just over 300 million)

average Facebook user is connected to 80 community pages, groups and events and shares 90 pieces of content a month, it's easy to see the potential of these networks and why Mr. Toland spends so much time studying them.<sup>36</sup> They are a way to help farmers gain leverage.

"Before these networks, you had traditional advertising. You paid for an ad or put out a press release and hoped it would get picked up. Now you can get messages to people for free in a way that is more engaging and goes directly to them. Through these channels, all you have to do is put out a message and get people to subscribe once. I tell farmers to not only build their personal brand, but to get the farm a page on Facebook. What better way to get out there than to share messages where consumers are spending time? With smart phones it's easy for farmers to get messages literally into people's pockets...it gets information right to the city streets where it needs to be...we're not waiting for them to come to us, we're going to them."<sup>37</sup>

Farmers, however, have mixed feelings about using social networks and websites as marketing tools. Interviews with farmers at the Dupont Circle Farmers Market in Washington D.C. revealed very different approaches and perspectives. Some farmers, such as Mark and Clare Seibert of Clear Spring Creamery, have wonderful success stories. The Seiberts' maintain a Facebook page where they regularly post updates about what's happening at the farm. Their wall is full of questions and comments from the 141 members who belong to the Siebert's page complimenting products or inquiring about production methods or availability. The Siebert's also have a website that shares their philosophy, farming practices and family story. This clarifies their values and explains why their story is unique. It gives customers a personal story, which marketing studies have shown is highly

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<sup>36</sup> "People and activity on Facebook." *Facebook*. Facebook. Web. 11 Mar. 2010. <<http://www.facebook.com/press/info.php?statistics>>.

<sup>37</sup> Toland, Dan. "The Role of Social Media in Agriculture." Telephone interview. 10 July 2010.

effective.<sup>38</sup> Reflecting on how this outreach has changed their business, Mrs. Siebert said, “sharing our story really built us loyal customers. Once people get know us, its not just about business, it’s about trust in the quality of our product.”

Customer loyalty is difficult to measure and the Siebert’s haven’t used web analytics to evaluate their site’s effectiveness, but their approach matches Mr. Toland’s assessment of the value of personal outreach. “People don’t believe jargon, they want to look at a real person. Authenticity and transparency are a huge part of this...personalizing brands, building trust, becoming a credible, reliable source of information that people can rely on.”<sup>39</sup> The Sieberts’ are offering something to their customers that larger brands cannot—an exchange that is more than transactional. This is a huge advantage for smaller growers who are competing with larger distributors because it is something that cannot be mass marketed.

Not all farmers are as enthusiastic about moving online. Some feel uncertain, overwhelmed, or that there is not enough time to spend with online outreach. Cinda Sebastian, owner of Gardener’s Gourmet, has no interest in using social networks. “I work a 45 hour weekend at the market and come back to the farm with a full work week ahead of me. I don’t have time to spend online. Growing food is my fulltime job and for people to expect more just isn’t realistic.”<sup>40</sup> Ms. Sebastian started with a roadside stand in 1979 and has since expanded her operation to a forty-acre farm, stalls in farmers markets and regular deliveries to restaurants in D.C, Baltimore and Virginia. With established connections and experience, her business model

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<sup>38</sup> Cantor, Alida and Ron Stochlic. “Breaking down Market Barriers for small and Mid-Size Organic Growers.” USDA Ag Mrketing Service. Nov 2009. (p.10)

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<sup>40</sup> Interview with Cinda Sebastian at the Dupont Circle Farmers Market on Sunday March 28, 2010.

demonstrates that social networks are not always necessary. It's an excellent reminder that farms should carefully consider why they are going online. For established growers with limited time and little interest in expansion, Facebook and Twitter are not a logical or efficient use of time.

Other farmers interviewed expressed interest in using social networks and having websites, but felt intimidated by technology. Jimmy and Paige Hogge of Buster's Seafood echoed the time concerns of Ms. Sebastian, but added that they didn't want to post their lives online and felt "too old" to learn new technology.<sup>41</sup> "We spend our weekends at the market talking with our customers. If there's anything they want to know, they can ask...out side of here, our time is our own and our lives are our own. We don't need to post pictures all over the Internet, people know what we do." The Hogges' reaction raises an important characteristic of U.S. farmers that any advocate planning to use the web as a tool for outreach should consider: age. According to the most recent agricultural census, the average American farmer is 57 years old.<sup>42</sup> Web 2.0 wasn't a term before 2004. YouTube didn't launch until 2005. Facebook wasn't a network outside of university communities until 2006. Twitter launched in 2006 and became popular in 2007. With the hype surrounding social networks it's easy to forget how new these tools are and how fast they change. For an older community that is less familiar with the online world, these platforms can be unfamiliar and difficult to navigate. To assist farmers, Mr. Toland and his team at the Ohio Farm Bureau created a guide

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<sup>41</sup> Interview with the Hogge's at the Dupont Circle Farmers Market on Sunday March 21, 2010.

<sup>42</sup> "Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition." (p.1)

explaining how to use social networking sites.<sup>43</sup> It would be an unfair generalization to characterize all farmers as being unfamiliar with technology. Many are actively tweeting updates, maintaining websites, posting to blogs and putting up videos on YouTube channels. But age is an important factor for those working with farmers to consider because it characterizes the demographic.

Even if interested, many farmers don't have time to spend online. For these communities, the model adopted by FRESHFARM Markets, a nonprofit group responsible for managing 11 farmers markets in the Chesapeake Bay region, could be useful. FRESHFARM established a website that gives each market its own page with detailed information about its location, hours of operation and directions. Each market's page also has individual profiles participating farmers, which allows visitors to learn more about farms' products and philosophies.<sup>44</sup> This is a less interactive alternative to social networking sites that allows farmers to effectively share their values and stories without requiring constant updates. For markets that are not as well funded or organized as FRESHFARM, a less ambitious, more cost efficient option, would be to split the cost of hiring a web developer to create and maintain a market website.<sup>45</sup>

These are just a few possible approaches. The skills and needs of each community are unique, so there's not a blanket fix-all strategy to apply. What is important is that constituents be aware of the tools at their disposal and discuss the needs and interests of their communities before collectively developing a strategy

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<sup>43</sup> Freely available for download at: <http://ofbf.org/media-and-publications/social-media/>

<sup>44</sup> Visit the website at <http://www.freshfarmmarket.org/markets.html>

<sup>45</sup> There are many professional hosting companies, but BlueHost is an inexpensive company that provides 24 hour assistance to customers: <http://www.bluehost.com/>



that takes the tools, needs, resources and interest level into account. If social networks and websites become an added burden for small farmers then they aren't serving their purpose. Success stories showcase the potential of these tools to help farmers who are just starting out, struggling to find customers, or looking to expand sales to make meaningful connections with their communities. For these farmers, these networks are important to consider because they are spaces where people are spending significant amounts of time.

**Convenience:** Social networks and websites help farmers share stories and build relationships, but advocates can't rely on everyone caring about their cause. Regional food webs need to be efficient and easily accessible. Americans have full time jobs, families and busy schedules. They may care, but have limited time to spend scrutinizing alternatives. Time, distance and financial constraints must be taken into account by local food networks because they are often the bottom line that determines people's food choices.<sup>46</sup> Surveys of consumer preferences found that limited access to markets, limited awareness of markets and limited information about products available are reasons people avoid farmers markets.<sup>47</sup> In many cities local food is more difficult to locate and less convenient than shopping at larger grocery stores. Inconvenience factors into customer reliability and is a barrier to the expansion of local food webs.

Local Harvest, Real Time Farms and the USDA Agricultural and Marketing Service, are organizations working to help farmers with marketing and make local food more accessible to consumers. By hosting and maintaining websites with easily

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<sup>46</sup> Belasco, Warren James. *Food: the Key Concepts*. Oxford: Berg, 2008. Print.

<sup>47</sup> Martinez et. al. *Local Food Systems: Concepts, Impacts, and Issues*. (p.30)

searchable directories of local food venues, these organizations are providing a valuable service to farmers and consumers. For buyers it is quick and convenient to enter a zip code into a search bar, which pulls a comprehensive list of farmers markets, CSAs, restaurants, food cooperatives and grocers in their areas that source locally. For farmers, a listing in these online directories is free marketing that gives them access to online networks with thousands of members.

Local Harvest, Real Time Farms and the USDA have similar goals, but their sites have different designs and functions. The USDA's site was more difficult to navigate than the other directories and the least user friendly. It lists direct marketing channels on completely different pages, which creates an extra step for users. The USDA also hasn't mapped restaurants or grocery stores that source.<sup>48</sup> However their database is the only directory that allows filters search results by places that accept vouchers from food assistance programs, which is essential for customers with lower incomes. Also both Local Harvest and Real Time Farms used the USDA database as a foundation to launch their directories.

Local harvest was founded by a small software development company in California with the goal of leveraging the internet to help small farmers with marketing.<sup>49</sup> With the most comprehensive online database, an extremely user-friendly directory, over 20,000 members and a substantial portion of local food networks mapped nationwide, Local Harvest's directory is the most comprehensive map of local food. On the site, users can filter searches by specific marketing

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<sup>48</sup> <http://apps.ams.usda.gov/FarmersMarkets/>

<sup>49</sup> The Story of LocalHarvest." *Local Harvest*. July 2009. Web. 09 Sept. 2010.

<<http://www.localharvest.org/newsletter/20090807/story-of-localharvest.html>>.

channel; ie; CSA, farmers market, farm stand or farm; or order goods from farmers through an online farmers market maintained by Local Harvest.<sup>50</sup>

Recently, Local Harvest expanded its directory to accommodate needs of farmers and wholesale buyers. They added a search filter that allows small farmers to search for meat processors in their area and another filter that lets restaurants or grocery stores search for farms that sell wholesale. These changes illustrate how the organization is constantly evolving its online services to meet needs of stakeholders across the food chain. The directory has become more than a farmer-consumer connector and is a resource for farmers and distributors. It facilitates the distribution of local food at an individual and wholesale level by making it convenient for buyers and sellers to connect and organize sales.

Growers and sellers are responsible for managing and providing much of the content and information on Local Harvest's directory. Farmers update their profiles, post photos and add other relevant links such as blogs or personal websites to their profiles. Local Harvest sends monthly newsletters to subscribers and keeps a blog to update community members about improvements and modifications to the site, but due to time constraints blog posts are infrequent.<sup>51</sup> Local Harvest primarily focuses on maintaining and developing its directory and building features into their site. In May of this year, they enabled comments on their newsletters and this fall they launched a software system to help farmers running CSA's manage orders online.

Real time Farms has less data than Local Harvest and on its directory food webs are not as extensively mapped, but it is a much newer directory. It was

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<sup>50</sup> Local Harvest takes a 15% tax from sales made through its online market

<sup>51</sup> The Story of LocalHarvest." *Local Harvest*. July 2009.

founded in April 2010 by Karl Rosaen, a food enthusiast with a B.A. in computer engineering who felt there was, “an increasing number of wonderful farmer’s markets, farm stands and locally sourced restaurants and grocers...but not a coherent, real-time, information-rich way to view what was available.”<sup>52</sup> An interactive community-mapping project, Real Time Farms’ directory relies heavily on crowdsourcing to provide content and keep pages updated and lets users take a more active role in the community.<sup>53</sup> This approach is different from Local Harvest, which places the burden of content management on farmers. In an interview, outreach Director Cara Rosaen explained how they reached this decision. “One of our first questions was how do we get farmers on the site? We initially reached out directly to farmers, but it quickly became apparent to us that this wasn’t the best way to get information. Some would be interested, but others weren’t or they weren’t tech savvy, or didn’t have the time. We asked ourselves who would have the time and interest to update content and share stories, and we realized it was local food enthusiasts.”<sup>54</sup> Their site allows users to post content using a variety of media—photo, video, and audio. It’s a directory that maps local food webs, but it’s also a networking place for local food enthusiasts to share stories about their interactions with different parts of the food web. “Our directory at Real Time Farms is powered by the people,” said Rosaen, describing what makes it unique. “It’s not

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<sup>52</sup> “About.” *Real Time Farms*. Web. 01 Oct. 2010. <<http://www.realtimesfarms.com/about>>.

<sup>53</sup> Crowdsourcing is the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call to action

<sup>54</sup> Rosaen, Cara. “Real Times Farm Interview.” Telephone interview. 29 Oct. 2010. *Ms. Rosaen is the Outreach Director of Real Time Farms*.

powered just by the farmers or paying customers. It's something communities are invested in. It's real."

Crowdsourcing may take the burden off farmers to maintain content and post media, but the trade-off for farmers is a loss of control over their farm's image, which farmers some might not be comfortable with. Restaurants and grocers pay a fee to be listed in the directory and maintain control the content of their listings.<sup>55</sup> Thus far Real Time Farms has not had to remove any content for being inappropriate, though they plan to add a feature that will allow people to flag inappropriate or false content on the site.

They also plan to make their database more in-depth. Eventually, restaurants that source locally will have online menus listing dishes and ingredients that link to profiles of farms that restaurants source from. Real Time Farms has sent out detailed surveys to farmers with questions about pesticide use, water use and farming methods that they plan to add to farm profiles.<sup>56</sup> By allowing people to see not only where their food is from, but exactly how it was produced, this would make the farm to fork pathway completely transparent.

The risk with this model is that the site hinges on honesty; honesty of farmers to tell the truth about how they grow their products, of restaurants to source from the farms they list, and of individuals posting content about their food web. Real Time Farms also hasn't established a process to verify the surveys they distributed about farming methods. Their site is still in the early stages of development, and its success uncertain, inviting people to take an active role and

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<sup>55</sup> Rosaen, Cara. "Real Times Farm Interview." Telephone interview. 29 Oct. 2010.

<sup>56</sup> Rosaen, Cara. "Real Times Farm Interview." Telephone interview. 29 Oct. 2010.

share stories about their experiences with local food networks is a creative answer to the question of how to help farms develop a presence online. It gets people to plug into their local food communities and gives farmers a presence online without requiring them to put in any time, effort or resources. To succeed Real Time Farms needs to establish a credible reputation, ensure that community members stay active, and continue growing their database and community.

Both Local Harvest and Real Time Farms have developed successful and creative ways to make it more convenient for people to purchase locally. But both organizations face challenges and limitations. Logistically, funding is an issue. Neither organization wants to charge user fees but they cannot afford to provide free services. Local Harvest has never charged member fees to farmers because its founders knew it would discourage farmers from participating, but over the years it has struggled to continue operating.<sup>57</sup> Currently, Local Harvest takes 15% from sales placed in its online market and asks members annually to make a voluntary contribution, but in the future they hope to find other sources of funding.<sup>58</sup>

Real Time Farms is largely self-funded, with assistance from an anonymous philanthropist.<sup>59</sup> Eventually, they plan to charge restaurants and grocers a membership fee for being listed, but with such variety in size and profit margins, determining how much to charge each business is difficult. Real Time Farms has eight restaurants participating in a pilot program and subscribing to the service. In addition to member fees they are pursuing grants from foundations and the

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<sup>57</sup> The Story of LocalHarvest." *Local Harvest*. July 2009.

<sup>58</sup> The Story of LocalHarvest." *Local Harvest*. July 2009.

<sup>59</sup> Rosaen, Cara. "Real Times Farm Interview." Telephone interview. 29 Oct. 2010.

government, which they are eligible for because they established their organization as an LC3 business. LC3s are defined as companies whose primary mission is social rather than to generate profit, which gives them a tax status that makes them eligible for grants and other funding usually only available only to nonprofits.<sup>60</sup>

Another challenge facing both organizations is collecting information. Mapping regional food webs on a national scale and aggregating data in one centralized location is a huge task. Both organizations could develop more comprehensive maps by sharing information and collaborating with extensions and the USDA, but legally there are privacy issues, and financially there are business considerations that make this difficult. Data is one of the most valuable assets for web-based organizations and information is often proprietary. But because Local Harvest and Real Time Farms have different business models and similar long-term goals, there is an opportunity for collaboration that could strengthen both organizations. Possible avenues include highlighting each other's organizations in blogs or newsletters, problem solving software or other development issues, or hosting joint fundraisers. There are many avenues for collaboration, but it requires trust, creativity and long-term vision of future benefits.

Despite challenges, both sites are growing their user bases and successfully connecting farmers with customers. Since its launch this spring, Real Time Farms has tracked steady increases in traffic. Since 2009 Local Harvest has had 4.2 million unique visitors, or about 350,000 new visitors each month. Since they began using

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<sup>60</sup> Rosaen, Cara. "Real Times Farm Interview." Telephone interview. 29 Oct. 2010.

analytic software in 2005, they have tracked over 11 million visitors to their site.<sup>61</sup> For farmers, customers, and buyers, these platforms are providing services that aren't available anywhere else.

## **Barrier 2: Market Access and Distribution**

Beyond working to make change at a micro level through databases, social networks and blogs, local advocates are leveraging web 2.0 to make change at a macro level. FarmsReach and Local Dirt are start-ups established to help small farms partner successfully with buyers and distributor and integrate into the food system. Formerly competitors, these organizations have developed different approaches to helping small farms succeed. Local Dirt views market access as the key problem facing small farmers and designed their site to help interested buyers make purchases through an efficient online ordering system. FarmsReach started with this approach, but recently changed their focus to developing tools that help small farmers prepare for market.<sup>62</sup>

**Market Access:** Smaller-scale farms have lost infrastructure and decision-making power operating in a market where sales are concentrated between a few dominant buyers and sellers.<sup>63</sup> According to a USDA researcher's description, "larger buyers want to work with larger producers, so larger buyers are gobbling up smaller buyers, who would work with smaller farms and larger farms are gobbling up smaller farms."<sup>64</sup> This environment makes it difficult for small growers to survive and has created what

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<sup>61</sup> The Story of LocalHarvest." *Local Harvest*. July 2009.

<sup>62</sup> Cheng, Melanie. "Farms Reach Interview." Telephone interview. 1 Nov. 2010. *Melanie is the founder of Om Organics and Farms Reach. Currently, she is the acting Director of both organizations.*

<sup>63</sup> Cantor, Alida and Ron Storchlic. "Breaking down Market Barriers for small and Mid-Size Organic Growers." USDA Ag Mktg Service. Nov 2009. (p.13)

<sup>64</sup> Cantor, Alida and Ron Storchlic. "Breaking down Market Barriers for small and Mid-Size Organic Growers." (p.12)



Undersecretary of Agriculture Kathleen Merrigan referred to as “the disappearing middle” of American agriculture, an alarming loss of smaller to mid sized farms that cannot produce in large enough volumes to participate in the mainstream food system and are finding themselves unable to meet operation costs.<sup>65</sup> In 2007, 40,000 small to mid size farming operations were lost.<sup>66</sup>

For most buyers supply chain reliability is the bottom line. Buyers want consistent, guaranteed, on time and quality deliveries for their customers with low transaction costs. In the current food system, inefficient distribution and unreliable deliveries are risks of purchasing from small farms that deter interested buyers from sourcing locally.<sup>67</sup> When the choice is between ordering from a large distributor with an assigned account manager and global food supply that essentially guarantees delivery, or calling countless small and medium sized farmers to negotiate prices, pick-ups and deliveries; the time, frustration and higher risk make nearby farms an unlikely choice, even for buyers who want to buy local. Companies like Sysco, the dominant food supplier in the U.S, which had \$37 billion in sales in 2008 and 400,000 customers nationally, offer assurances that smaller farms cannot.<sup>68</sup>

Growing consumer interest and awareness about food and where it comes from is changing buyers’ incentives and making local sourcing a higher priority.

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<sup>65</sup> Merrigan, Kathleen. “An Introduction to Know Your Farmer, Know Your Food.” National Association of Agricultural Journalists Speech April 26, 2010.

<sup>66</sup> In her speech, the Undersecretary defined small to mid sized farms as those making between \$10,000 and \$500,000 annually. (p.1)

<sup>67</sup> Cantor, Alida and Ron Storchlic. “Breaking down Market Barriers for small and Mid-Size Organic Growers.” (p.5)

<sup>68</sup> “The Sysco Story.” *Sysco Corporation*. Web. 14 Nov. 2010.  
<[http://www.sysco.com/aboutus/aboutus\\_story.html](http://www.sysco.com/aboutus/aboutus_story.html)>.

...As consumer demand for locally produced organic food from smaller farms increases, wholesale, retail and institutional buyers are increasingly interested in working with smaller-scale farms. While many buyers expressed strong interest in working with small and mid-sized organic farmers, they also cited significant challenges, including price and transaction costs. These challenges create a major bottleneck in marketing for small and mid-sized organic farmers, who in turn experience difficulties in accessing these larger marketing channels. There is a strong need to develop financially viable ways to bridge this gap between smaller organic farms and larger distribution and marketing channels. The development of values-based supply chains, including marketing cooperatives, distribution hubs and sympathetic distributors could help smaller farmers access the markets that are currently accessible only to larger farms.<sup>69</sup>

Local Dirt wants to make ordering from smaller farmers as easy as ordering from Sysco. Founded by Heather Hilleren, who dealt with many of these market inefficiencies as a Whole Foods store manager, the organization designed their site to create efficient local markets in one transactional platform used by individuals, businesses, and distributors. Serving as an intermediary between farmers and buyers, Local Dirt manages farm profiles with updated pricing sheets and product lists and provides invoices when buyers make transactions onsite. Farmers simply identify the type and quantity of their available product, and as orders are placed the database updates in real-time and availability adjusts automatically.<sup>70</sup> This ensures that farmers cannot oversell and that buyers get what they order. After orders are placed, an invoice is automatically generated and sent to both parties. Farms specify when they register if they deliver and list pick-up days and locations. This helps buyers coordinate pick-ups and delivery schedules. Farms selling both wholesale and to individuals can also customize their price

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<sup>69</sup> Cantor, Alida and Ron Storchlic. "Breaking down Market Barriers for small and Mid-Size Organic Growers." (p.32)

<sup>70</sup> "FAQ - Local Dirt." *Local Food*. Web. 1 Sept. 2010. <<https://www.localdirt.com/faq-a193.html>>.

sheets for different buyers. As Ms. Hilleren explained, “with our system, you don’t have to pick up the phone. You can if you want, but all the information is online. It really is as easy as placing an order with a few clicks.”

To ensure product lists stay current and transactions run smoothly, Local Dirt offers assistance to farmers who don’t have time to update information. Farmers can send changes to Local Dirt via phone, fax or email and the organization updates the farmer’s information accordingly. This service also allows farmers without Internet to list their farms by phoning or faxing their information.

The site is still in its pilot stage, so services may change as it grows. Eventually, there could be a service fee for farmers that ask Local Dirt to update information, or the organization may develop a program that will automatically update changes when farmers send in new price sheets.<sup>71</sup>

Local Dirt views their role as being more tool than teacher, and usually works with buyers and sellers that have established relationships.

“The local food movement has taken off and farmers have the opportunity to sell in different venues. But when you sell at a store, the product has to be packaged differently than it does when you’re selling at a market. For example, when you sell strawberries to a restaurant you want them to be extremely ripe, ready to use in two days. When you sell to the grocery store, you want them to be less ripe, ready to sit for a few days. There are other differences...if a farm wants to ramp up their production they have to learn so much about pricing and packaging...We partner with different organizations that do this education, because we don’t know the specific laws for each place, so we let organizations get into that. But we can’t educate in every single state, that’s really the job of the USDA. We see ourselves as just the tool. If you want to sell to those markets and you want to find those markets, we’ll

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<sup>71</sup> Hilleren, Heather. "Local Dirt Interview." Telephone interview. 2 Nov. 2010. *Ms. Hilleren is the founder and acting Director of Local Dirt*

help.”<sup>72</sup>

With thousands of members active in every state, Local Dirt has established a promising model for connecting smaller growers with buyers. A grant from the National Science Foundation covered start-up costs and allowed them to offer free memberships the first year, but in 2011, the organization will begin charging an annual \$360 fee for members that buy or sell wholesale.<sup>73</sup>

**Market Preparation:** FarmsReach is also helping small farmers access markets, but has developed a much more involved approach. Founded in 2007 by a group of technology, agriculture and sustainability professionals, the FarmsReach mission is to help farmers access new markets and larger-volume buyers access regional foods. They began with a model similar to Local Dirt’s, but changed their approach as their understanding of the problem shifted. At a recent workshop, they invited stakeholders from across the food chain to identify why, despite demand, regional food systems are not scaling quickly or easily. Their conclusion was that the problem goes beyond market access. According to FarmsReach founder Melanie Cheng, “many of us believed intuitively that regional farms just need a more efficient marketplace...but we found that the more urgent need is to help farms *prepare* for market: specifically they need tools to assist with pricing, packing, food safety compliance, planning, and group purchasing.”<sup>74</sup>

Their focus on preparedness is tied to another conclusion reached at the

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<sup>72</sup> Hilleren, Heather. "Local Dirt Interview." Telephone interview. 2 Nov. 2010.

<sup>73</sup> "FAQ - Local Dirt." *Local Food*. Web. 1 Sept. 2010. <<https://www.localdirt.com/faq-a193.html>>.

<sup>74</sup> "About Us." *FarmsReach*. Web. 1 Sept. 2010.

<<http://www.farmsreach.com/welcome/about/index.html>>

meeting; if they want to participate in the market, local farms need to scale up.

“The real question is how do we produce large volumes of sustainably produced food. We have to figure out a model that works with the existing system. We have too many people to go back to farmers markets. So you think about the choices to feed large volumes...regardless of whether there’s a small market or not, individual farms can’t serve needs of buyers. So there’s consensus that some sort of aggregation of farms is part of the answer...but there is controversy over which aggregation model is the answer. Not only is the model not known, but there’s debate over if we should even have aggregators. A lot of the problem that suppliers down the food chain expressed is that there are too many middlemen. If we cut out middlemen, then farmers need to be better prepared for market. They need to grow the right things based on demand, how to package things differently, there’s a minutia farmers need to follow but they don’t know which rules apply to which buyers or regions or they don’t have capacity to meet them.”<sup>75</sup>

FarmsReach has put together a leadership committee of farmers, aggregators and distributors. Broken into groups, the committee will focus on four areas: pricing, packaging, food compliance and group purchasing. While they are just starting to develop specific tools for each of these categories, possible ideas include: a database that would allow farmers to enter a crop and get real time prices for that crop in their region; a packaging database where farmers could enter in the type of buyer they are selling to and pull up a list of that buyer’s required packaging types, sizes and weight; a regulatory database where farmers could enter in characteristics such as their farm’s location, size and type of operation and get a list of regulations they need to meet that are specific to their area.

All of these tools have to do with aggregating information and entering it into a database that is accessible and easily searchable. For agriculture, this is a huge task.

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<sup>75</sup> Cheng, Melanie. "Farms Reach Interview." Telephone interview. 1 Nov. 2010.

According to Ms. Cheng, “the reason there’s not much information technology in farming is because it varies not only farm to farm but region to region...there’s a drastic, gaping need for better information aggregation in any supply chain and a huge opportunity to build these tools.”<sup>76</sup> The software they are developing will help farmers wade through the mass of regulations, rules and restrictions that come with scaling up. Over the next year they are building prototypes and testing them in different areas around the country. If successful, these tools will be made available nationally. They have developed a well-researched, pragmatic approach that incorporates stakeholders from across the food chain and are pioneers leading efforts to shift our food system to source from local and regional food networks.

### **Barrier 3: Meeting High Volume Sales**

Another component of scaling up is volume. Both buyers and growers cited volume as one of the most difficult challenges of their business.<sup>77</sup> To ensure they can meet demand, wholesale distributors require consistent availability and a commitment from growers to provide a certain volume at certain times.<sup>78</sup> If stakeholders can agree and establish the kinds of aggregation hubs that FarmsReach envisions, this will be less of an issue. But until this infrastructure is established cooperatives, networks and other business arrangements between small farms within the same region are possible solutions. Collectively, small farms can offer more products, diffuse risk and give buyers better assurance their needs will be met.

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<sup>76</sup> Cheng, Melanie. "Farms Reach Interview." Telephone interview. 1 Nov. 2010.

<sup>77</sup> “Breaking down Market Barriers for small and Mid-Size Organic Growers.” USDA Ag Mrketing Service. Nov 2009. (p.5)

<sup>78</sup> “Breaking down Market Barriers for small and Mid-Size Organic Growers.” USDA Ag Mrketing Service. Nov 2009. (p.15)

An example of this kind of successful collaboration is Farmer Girls, a network of 44 small farmers and producers from different counties in Virginia that launched in June 2009. Collectively, the farms host a weekly online market. Every Saturday, farmers post their available products and set prices for the week. Customers have several days to shop online and place orders through the website. At noon on Wednesday, farmers are notified of the week's order, and by Thursday, deliver their products to a central hub where orders are packed, billed and prepared for shipment to one of seven locations for customer pick-ups. Farmer Girls currently has 150 regular customers and a waiting list of a dozen farms interested in joining the network.<sup>79</sup> They hope to expand as their customer base grows.

This partnership has allowed members to share managerial and operational burdens, have more time to spend on-farm and increased profit margins. More variety, a one-stop ordering system and convenient pick-up locations has attracted more customers. Having higher volumes of product has also enabled them to serve larger buyers. There are several restaurants that regularly place orders with Farmer Girls, which Ms. Williamson attributes to "good variety" and "...sav[ing] farmers and restaurants all the paperwork and legwork of dealing with each place on their own."<sup>80</sup>

To cover operation costs, Farmer Girls takes a 10 percent tax from all online orders and charges customers \$25 for six months and \$40 annually to use the online

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<sup>79</sup> Williamson, Deborah. "Farmer Girls Interview." E-mail interview. 25 July 2010. *Deborah Williamson was one of two founders of Farmer Girls, recently she left Farmer Girls to be the Community Relations Manager at the Vint Hill Economic Development Authority*

<sup>80</sup> Williamson, Deborah. "Farmer Girls Interview." E-mail interview. 25 July 2010.

market.<sup>81</sup> Agreements between farmers in the network are all verbal, which has been successful up to this point. However, many of the farmers knew each other prior to forming the network. Farmers who are less familiar with colleagues in their region may want to consider developing a contract detailing membership terms.

Reflecting on the success of the network, Ms. Williamson remarked that Farmer Girls has, "...taken selling local small farm food further than anyone else in the county. But it's still a high volume, low dollar business, like grocery stores, so there's not a huge profit margin."

### **Conclusion:**

The efforts and creative solutions of entrepreneurs leading efforts to move local food from a niche market to a significant part of our agricultural landscape are inspiring. But they also raise many questions for local food advocates. As farms begin scaling up, will the local food movement be able to maintain its core values and identity? Will the relationships that direct sales have cultivated between farmers and consumers survive if distribution and aggregation hubs begin funneling small farms produce into mainstream markets? Even if small farmers are prepared, aggregation hubs built, middlemen cut out, and the system streamlined, will it really be better than the one we have now? Will the changes local advocates are championing address fundamental problems with long-term sustainability, reliance on harmful chemicals and unhealthy processed foods that are part of our current

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<sup>81</sup> "FAQ." *Farmer Girls*. Web. 19 June 2010.  
<<http://www.farmergirls.net/index.cfm?CFID=1275851&CFTOKEN=42127136>>



food system? These are huge questions, and their answers determine the legitimacy of locally sourced food as a viable future alternative.

One thing is certain. We are coming to a crossroads. The average farmer in the U.S. is 57 years old and in the next 20 years the USDA estimates that over 70 percent of farmland will change hands.<sup>82</sup> That is over 400 million acres of farmland, an area greater than all our national parks combined

If we want our food system to be sustainable in terms of energy efficiency and use of finite resources, to support American farmers and local economies by sourcing from local farms that are plugged into robust regional food networks, then we as a society need to invest time and resources to answer these questions. In the next few years there is a window of opportunity to decide where we want our food system to look like. But it requires honest conversation followed by decisive action. Constituents across the board are interested and web 2.0 offers an array of tools to inform, connect, organize and leverage change. It's a bridge for stakeholders from citizens to producers to advocacy groups and policy makers to connect. We have etchings of a roadmap and the tools are there, but they need to be developed and applied efficiently and with strategy. The future of a food system that sources locally and reforms the first mile is an exciting possibility within our grasp. No pathway forward will be perfect, but it can certainly be better.

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<sup>82</sup> Sureshwaran, Siva, and Patricia McAleer. "Farm Transitions Update." *USDA Cooperative State Research Education and Extension Service*. CSREES, Apr. 2008. Web. 4 Feb. 2010. <[www.csrees.usda.gov/nea/ag\\_systems/.../farm\\_transitions\\_update.pdf](http://www.csrees.usda.gov/nea/ag_systems/.../farm_transitions_update.pdf)>.