

Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Josh Simpson

San Jose State University

December 9, 2019

Info 200-05

Dr. Kevin Bontenbal

## **ABSTRACT**

My research attempts to uncover and elaborate on pervasive yet sometimes disparate information-related behaviors that animate practitioners of urban community gardening and urban farming. Using a mix of scholarly articles about information behavior theory and urban agriculture along with professional and user-generated online sources, I examine the multifaceted social worlds, practices, and aspirations of urban agriculturalists and attempt to embed them in a context of information seeking, encountering, use, creation and sharing. Despite a dearth of scholarly literature on the information behaviors of my research subjects, patterns emerge across a broader spectrum of texts and media which lend shape and substance to the figures of the community gardener, the urban farmer and the advocate for change in our food systems, local economies, and urban way of life. Over the course of this semester, the domain of my research grew to encompass not just the volunteer workers and project leaders putting their labor into community gardens and farms, but also the organizations and institutions working to provide direct and indirect assistance to the volunteers with their “hands in the dirt.” These groups aim to facilitate partnerships between gardens and farms and their potential support systems, and to effect change at local, regional and national policy levels. For the urban food movement as a whole, a key takeaway is that while significant challenges still confront its acceptance and viability, it is being driven by committed, innovative, connected and resourceful individuals and organizations. Creative change appears to be woven into the global urban agriculture community’s DNA. From an information technology perspective, the use of online and other digital tools in these communities is likewise evolving and becoming more effective, though there are interesting exceptions which I address later on.



## INTRODUCTION

Over the past two decades, the urban community gardening and farming movement has continued to gain in popularity and is increasingly visible in the daily fabric of dozens of cities around the world. For its proponents, urban community gardening can be described as a crucial hub or node in a dynamic network of related issues and actors. In addition to the core work and outputs of urban gardens and farms, there are enmeshed causes and benefits like environmental restoration, equitable access to healthy foods in underdeveloped neighborhoods, community empowerment, recreation and exercise, and beautification of blighted areas, among others. Writing in “The Gift of Good Land” in 1979, Wendell Berry presciently captured an idea that permeates the current urban food movement: “Gardening has a power that is political and even democratic. And it is a political power that can be applied constantly, whereas one can only vote or demonstrate occasionally” (1979, p. 168). The movement – heterogeneous as it can be -has achieved a critical mass and staying power which demands that it be taken seriously.

As the reader will have already noticed, there is no single definitive way to refer to the diverse group (or, arguably, groups) of people I chose to research this semester, though there are several related terms in common use which overlap to greater or lesser degrees in various places and situations: urban community gardeners, the urban food movement, urban agriculturalists, and urban farmers. I frequently use these terms interchangeably, but when it’s important to differentiate them, I will. When I began the research project, I intended to limit myself to urban community gardeners in the US, but I soon realized that there was a great deal of intersectionality between this group and others across the globe with similar interests, practices, and goals, not to mention information needs and behaviors. I widened my research lens to include urban farmers, which, in several respects – their market focus, private ownership, and the

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

nature and volume of their commercial output - are cousins once removed from urban community gardeners. One of the reasons I decided to expand the scope of my explorations – aside from the interesting areas of convergence that exist between urban farmers and community gardeners - is that the scholarly literature on the information behaviors of community gardeners is scant. Urban farmers have received considerably more attention from academics than their smaller-scale communal kinfolk, a circumstance which reflects the fact that numerous US and international university agriculture “extension programs,” NGOs and institutions like the USDA, the UN and World Bank all devote significant resources towards studying and supporting urban farming.

At the risk of oversimplification, my research on urban gardening and farming communities suggests that there is an arc of evolving information behaviors for participants which tracks with their level of experience. The image falls well short of organizing all of my research or describing my varied subjects, but for argument’s sake we can say that this trajectory might begin with curiosity and basic questions - perhaps prompted by an unplanned information encounter - then progress to a desire or need for details about gardening practices and site- and project-specific activities, and over time extend into creating and sharing information that encompasses both the practical and the aspirational domains of the urban food movement.

The spread of urban gardening has been significantly enabled by an embrace of internet technologies. These have been instrumentalized in myriad ways: to promote awareness of local garden projects, to recruit newcomers, volunteers and donors, to offer educational resources, to present a larger context of related activist campaigns, to gain the trust and participation of the people living near community gardens, to connect individuals with various organizations, to share practical knowledge and to advance a variety of interconnected causes. I find that several

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

of the information behavior theories we considered this semester are relevant (though not necessarily a perfect or comprehensive fit) to understanding the community of urban gardeners, from Christen & Levinson's "angles of community" to Fisher and Durrance's "five characteristics of informational communities" and "information grounds," Erdelez's "information encountering," Chatman's "small worlds," Stebbins' "serious leisure," Hektor's model of information behaviors and activities, and Hartel, Cox and Griffin's extensions and synthesis of Stebbins' and Hektor's work.

## **LITERATURE REVIEW**

From the onset of my research, I attempted to supplement course readings on information behavior and information community theory with scholarly articles examining these same ideas as applied to the field of urban community agriculture. Towards this end I utilized different databases found on the INFO 200 libguides page and the King Library's "One Search." At the same time I used Google to find and read non-peer reviewed sources which might illuminate the question of information behaviors in my research community as well as provide an overview of urban gardening culture, examples of community-oriented online publishing and data on the many links between urban gardening projects, their various partners and other groups working on parallel issues. I was deeply frustrated with the hunt for scholarly literature after several weeks of database searching only produced one article ("Information sharing, scheduling, and awareness in community gardening collaboration" by Wang, Wakkary, Neustaedtee and Desjardins) that dealt with information behaviors in the urban gardening community. There is a wealth of scholarly research on urban agriculture, food systems, and related activism from a number of perspectives, but information behavior theory is not one of these. As mentioned earlier, this scarcity of germane research was the prime reason why I enlarged my focus to include urban farming and agriculture. Yet even casting this wider net yielded less than a half dozen pertinent academic journal papers.

Conducting observations of community garden activities and interviewing community gardeners at several garden sites in Vancouver, Wang, et.al. found that a variety of tools (digital and otherwise) were used to share information with the volunteers who worked there. However, these tools were deployed almost exclusively in a top-down, managers-to-underlings direction, often to the chagrin of the volunteers. Interestingly to me, because I typically think of an

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

information need as a situation where an individual wants to fill a gap in their knowledge about something, the needs of these volunteer gardeners instead was to share information both with their peers and “up the chain” to project leaders. While web sites, email and calendar applications, on-site signs and notice boards and formal information exchanges (workshops) all had some value to volunteers, in all cases except the workshops, this value was undercut by virtue of its one-way flow. This general lack of interactivity, as Dresang might surmise, was vexing to those who felt it as a damper on their enthusiasm and productivity. In a development that recalls at least two of Fisher and Durrance’s characteristics of information communities, namely that they “exploit the information sharing qualities of technology” and “remove barriers to information about ... participating in civic life,” some gardeners improvised outside of the realm of the tools they’d been given. They discovered that taking photos with their phones of particular garden plots and sharing them via email with the people assigned to those plots was an easy and effective way to maintain group awareness about what work needed to be done and when.

A 2018 article by Kopyawattage, Roberts, & Warner looked at the information needs and information-seeking behaviors of urban food producers in Columbus, Ohio from the point of view of the Ohio State University “Extension” program. The study’s mixed-method approach (quantitative questionnaires and semi-structured interviews) revealed a complex picture of different preferences in the target population for various information “channels,” which the authors attempted to correlate to demographic and other data points. Describing these results in broad strokes, with the loss of accuracy and thoroughness that entails, the internet was the most frequently used source of information, followed by friends and co-workers, and family and close relatives. Younger urban farmers were even more likely to seek out online information sources,



## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

including publications and services from OSU's Extension department. Respondents also used social media sites to share information and to communicate with other agriculturalists. Facebook in particular was a heavily used source, primarily in the form of groups dedicated to urban farming. Facebook groups dedicated to urban farming include a wide variety of agricultural professionals such as researchers, food producers, Extension officers, etc. from around the world. Thanks to the fact that it's free and easily accessible, Facebook has become a vital resource for sharing, learning, research and consultation. In fact, the majority of respondents turned to Facebook groups before reaching out to other sources. These findings support a picture of urban farmers meeting most if not all of Fisher & Durrance's "five characteristics of information communities."

Far and away the biggest problem with the scholarly literature on information behaviors in the urban agriculture community is just the rarity of it. To call this a mere gap or weakness is an understatement. There is an evidently total lack of studies on newcomers to this community in terms of their information needs and behaviors, a fact which posed the biggest stumbling block for my research. Qualitative studies of beginner gardeners (semi-structured interviews, in situ observations and the like) in a variety of locations could shed light on their motivations and unearth the stories of how they came to get involved in gardening projects. Personally I would like to know whether my pet theory (speculation, really) that many people first become aware of community gardening by way of the kind of "information encountering" that Erdelez describes. Sampling from populations of urban gardeners and food producers with more experience might look at a host of other issues: their changing information needs, participation in information creation and sharing experiences, and use of online and other technologies to support these activities. One promising avenue of research could bring Stebbins and Hektor's theories of

serious leisure and information behaviors to bear on this demographic of more seasoned gardeners.

## **METHODOLOGY**

My research process began with the use of databases on the INFO 200 libguide site. After experimenting with all the databases, I found that the Taylor & Francis and EBSCO “Academic Search Complete” were the most productive for my queries. I also got some use out of Ulrich’s Periodical Directory, especially when using Google Scholar. I performed many citation lookups, both of works cited by articles that had some relevance to my research and also of the works that cited these same articles, methods that occasionally bore fruit, and at any rate sharpened my research techniques. Some of the journals that published on-topic articles include the Journal of Agricultural Education, the Journal of Human Sciences and Extension, and the Journal of Extension, though there are no sources that have published more than one article related to information behavior theory. In addition to the handful of material scholarly articles I located using these databases, I consulted a broad range of community-originated, non-profit / NGO and government agency websites related to the urban food movement and adjacent topics. Some of the most interesting and informative of these sites include the [American Community Gardening Association](#) (a candidate for the “flagship” site of the community gardening movement in the US), the [Smithsonian Community of Gardens](#) website (a repository of stories from gardeners that demonstrates a unique twist on information sharing and interactivity), the [DC Urban Gardeners Network](#)’s extensive collection of resources, the highly utilitarian [University of California’s Agriculture and Natural Resources / Cooperative Extension site](#), [ATTRA Sustainable Agriculture](#) (which contains the largest collection of links to urban agriculture resources I’ve

found), the open-access, scholarly [Journal of Agriculture, Food Systems and Community Development](#), and [Planting Justice](#), an inspirational East Bay-based group which connects urban agriculture with food justice, and runs a “holistic re-entry” program to teach prisoners agriculture skills before they leave prison.

## DISCUSSION

Urban community gardeners are, at the local level, connected by three of Christen & Levinson's "angles of community": affinity, instrumental and proximate. They are bound by affinity to the extent that participants in community gardens share an interest in gardening, being in nature and a desire to be involved in social activism in neglected urban spaces and neighborhoods. The instrumental angle follows from shared goals to effect local change, grow healthy food for local consumption, provide an example of positive change and an anchor for like-minded activism, and inspire local participation. At the individual project level, groups are also bound by proximity, though it's certainly not the case that everyone involved in a community garden lives in the neighborhood where the garden is located. At a macro level, considering the "community of communities" of people across the world who are involved in urban gardening, the proximate angle is of course irrelevant, but the affinity and instrumental angles remain vital, if bound to different local contexts.

The urban gardening community also satisfies Fisher and Durrance's "five characteristics of informational communities," namely that:

1. The urban gardener community places an emphasis on collaboration among diverse information providers,

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

2. The urban gardener community demonstrates a capacity to form around people's needs to access and use information,
3. The urban gardener community exploits the information-sharing qualities of emerging technologies,
4. The urban gardener community shows an ability to transcend barriers to information sharing,
5. The urban gardener community has a proven capacity to foster social connectedness.

By way of examples of technology use and information circulation, it's worth investigating the various interactive online resources used by urban community gardeners, which include forums, social media profiles, blogs, mailing lists, maps that depict garden sites and even sites that collect stories from gardeners. A large share of these online resources are geared toward beginners who presumably want learn the basics of gardening and volunteer at a local garden, but others provide information tailored to more experienced gardeners and activists who are involved in planning and management of garden projects: organizations which offer technical help, educational programs, aid with fund raising, land provisioning, local regulatory issues and opportunities for collaboration and partnership on a range of local and regional issues. It seems reasonable to assume that one primary goal of community gardeners' use of the web is to reach and recruit new volunteers and donors in their local area, a notion borne out by the prominence of information about workshops and events for beginners and links to donate on websites and social media. Other motivations include knowledge sharing, publishing topical news, promoting special events, connecting people to various resources, fostering collaborations with public, private and non-profit organizations to advance local causes, and enlarging the scope of gardening projects to intersect with related issues like environmental remediation, economic

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

development and social equity. All of this activity demonstrates that members of urban gardening projects have embraced online technologies to publish and share information that has relevance at different scales and in different contexts, from the hyper-local and site-specific to the global and systemic.

Without much guidance in the scholarly literature on the topic of "information seeking" in urban gardening communities, and little information from more informal online sources, I can only speculate that some people learned about community gardening by way of the kind of "information encounter" that Erdelez describes, whether by word of mouth, on social media, or even accidentally discovering a local garden while out walking. This is hardly an exhaustive list of possibilities. In Erdelez's terms, this kind of "passive" information "gathering" would not be "problem related information," but "interest-related information" which is "information users most likely have not tried to acquire before." She goes on to write that "information users often encounter information during routine activities that are not necessarily intended by users to be information-oriented" (2005, p. 28). Erdelez's framework of information encountering presents a potentially useful line of inquiry that could be deployed in the badly needed studies of the information needs and behavior of beginner urban community gardeners. It strikes me as worthwhile to consider whether encountering might also entail, in Chatman's language, the crossing into or disruption of a small world community, e.g. - neighborhood residents who were unaware of a local garden project until some novel source of information appeared. It stands to reason that the likelihood of a person who doesn't know about community gardening – or the existence of one close to where they live – finding out about it hinges to some significant extent on how confined or not they are in a small world context. Clearly this puts certain people – those that don't use social media, or whose social media feeds exclude content related to gardening

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

projects, or those who don't feel safe walking around their neighborhoods, etc. - at a disadvantage in terms of encountering a nearby garden project or even the idea of community gardening itself.

Practitioners of urban community gardening, whether new volunteers or veteran gardeners, embody traits and behaviors that align with sociologist Robert Stebbins' theory of serious leisure, in particular the types he identifies as "serious pursuits" and "project-based leisure" (2001). It's not a major stretch to see Stebbins' description of two types of information in serious leisure at play in the community of urban gardeners, namely fulfillment-related information ("knowledge gained over the course of the leisure career") and social-world information ("gained by participating in the social world ... more practical in nature, [encompassing] details that enable participation in the activities") (2001). There is a kind of trajectory to the acquisition of knowledge about urban gardening and agriculture, one that may last for many years, driven by the kind of activities Stebbin associates with fulfillment-related information: reading, browsing and searching online, and taking adult educational courses. Hartel, Cox and Griffin echo Stebbins in their assertion that "serious leisure and hobbies ... are based upon information acquisition and coalesced as information-rich social worlds." Community gardens can be described as "information-rich social worlds," both for the knowledgeable people that work there, the various educational resources available at garden sites and the technologies used to communicate, collaborate and aid the maintenance and vitality of garden projects. Volunteering at an urban garden provides first-hand access to different kinds of practical information that may lead to further commitments of time, energy and networking within and outside the gardening community.

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Hektor proposed a model of information activity that defines four core "modes" of "information behavior" - Seeking, Gathering, Communicating and Giving - which are then subdivided into eight types of "information activity" (2001). While the seeking mode is the most difficult one to isolate within the urban gardening community, a scan of the voluminous online resources related to urban gardening suggests that the other modes and activities are manifest among members of this community. The communicating and giving modes - linked to activities of exchanging, dressing, instructing and publishing - are the easiest ones to infer from an overview of urban gardening websites. These activities take place both online and in the real world, not only at garden sites but also in other contexts ranging from university programs to meetings with local government agencies, partners, and advocates like food policy councils. Referring to Hektor's model, Hartel, Cox and Griffin write that "it seems possible that information searching and browsing are more common early in the career where there is a steep learning curve, and then instructing and publishing become more frequent later once expertise is established" (2016). This appears to track with a path likely taken by many urban gardening community members from newcomer to more skilled, invested and activist gardener, to educator and publisher and project and organizational leader.

While a number of libraries have hopped on the community gardening train and have planted their own public gardens on site, there are other intriguing possibilities for collaboration between these two worlds. In his article "International Innovators: ALA Presidential Citations honor forward-thinking global libraries," (2019) Phil Morehart's describes the work of citation winner "Biblioteca Pública Central Estatal: Sustainable Library" in Mexicali, Baja California. Granted, their work, which aims to "address environmental sustainability with its patrons" by "[teaching] patrons about resource conservation efforts that can be practiced daily to

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

eradicate pollution in Baja California,” does not address urban agriculture per se, but it nevertheless gives one hope that libraries can be catalysts in the larger topic area of sustainability and conservation, which are very often concerns that urban gardeners and farmers and the organizations working in the “food systems” space share.

## CONCLUSION

Urban community gardens present rich examples of Fisher & Durrance’s characteristics of information communities and their definition of information grounds, a touchstone framework that I returned to again and again in INFO 200 (though I haven’t discussed information grounds here). Various information technologies are driving the expansion of the community, elevating its profile and bringing it closer to achieving some of its most high-minded ideals and aspirations for social change. Gardening practitioners and sympathetic activists and organizations have created an online ecosystem – one encompassing the web, social media, video sharing sites and more – which promotes gardening projects, activism on a variety of local, city and regional food and social issues, and national or international organizations involved in research, policy making, consulting, and dissemination of knowledge about producing food in urban areas. That said, information technology is neither a panacea for all the challenges this community faces, nor a solution that enhances the gardening experience for everyone involved in these projects. In fact, technologies can produce disengagement. In the only study based on direct observation that we have about community gardeners, Wang, et.al. observed that volunteer gardeners rejected some digitally tools, adapted other ones into new uses, and perhaps most importantly, greatly preferred more social interaction. While much of the information behavior theory we read in this class assumes that technology is always empowering, my sense is that this represents a bias in favor of



## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Fisher & Durrance's information community model and others (Dresang, etc.) that seem a bit dazzled by the brave new world of online community building. The major reason why this bias seems suspect to me is that in the course of my research I discovered that for many people, the most compelling and enduring attractions of community gardening are precisely that they afford a supportive, friendly social setting and tactile physical experience of work and communion with Nature, however compromised She may be.

REFERENCES

American Community Gardening Association (n.d.). Retrieved from

<https://www.communitygarden.org/>

[ATTRA Sustainable Agriculture](https://attra.ncat.org/urban-agriculture/) (n.d.). Retrieved from <https://attra.ncat.org/urban-agriculture/>

Batte, Marvin, Diekmann, Florian & Van, Fred. (2009). Examining information search strategies of Ohio farmers. *Journal of Extension*. 47(6). Retrieved from <http://www.joe.org>

Berry, W. (1981). *The Gift of Good Land: Further Essays, Cultural and Agricultural*. San Francisco: North Point Press.

Bickford, N., Mushi, M., Ramos, A., Torquati, J., & Trinidad, N. (2019). Engaging residents in planning a community garden: A strategy for enhancing participation through relevant messaging. *Collaborations: A Journal of Community-Based Research and Practice*. 2. 21. doi: 10.33596/coll.24.

Bishop, A.P. & Fisher, K.E. (2015). Information communities: Defining the focus of information service. In S. Hirsh (Ed.), *Information services today*. (pp. 20-26). Retrieved from [https://infocom.hyperlib.sjsu.edu/wpcontent/uploads/2018/08/Information\\_Services\\_Today\\_An\\_Introduction\\_-\\_3\\_Information\\_Communities.pdf](https://infocom.hyperlib.sjsu.edu/wpcontent/uploads/2018/08/Information_Services_Today_An_Introduction_-_3_Information_Communities.pdf)

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Cox, A., Griffin, B. & Hartel, J. (2016). Information Activity in Serious Leisure. *Information Research: An International Electronic Journal*, 21(4), 19.

Cui, Y. (2014). Examining farmers markets' usage of social media: An investigation of a farmers market Facebook page. *Journal of Agriculture, Food Systems, and Community Development*, 5(1), 87-103. doi: 10.5304/jafscd.2014.051.008

Desjardins, A., Neustaedter, C., Wakkary, R & Wang, X. (2015). Information sharing, scheduling, and awareness in community gardening collaboration. *Proceedings of the 7th International Conference on Communities and Technologies*, 27-30, 79-88.  
doi:10.1145/2768545.2768556

Dresang, E.T., & Koh, K. (2009). Radical Change Theory, Youth Information Behavior, and School Libraries. *Library Trends* 58(1), 26-50. [doi:10.1353/lib.0.0070](https://doi.org/10.1353/lib.0.0070).

Durrance, J. & Fisher, K. (2003). Information communities. In K. Christensen, & D. Levinson (Eds.), *Encyclopedia of community: From the village to the virtual world*. (pp. 658-661). Thousand Oaks, CA: SAGE Publications, Inc. Retrieved from <http://libaccess.sjlibrary.org/login?url=http://dx.doi.org/10.4135/9781412952583.n2>

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Erdelez, S. (1999). Information encountering: It's more than just bumping into information.

*Bulletin of the American Society for Information Science and Technology*, 25, 26-29.

doi:[10.1002/bult.118](https://doi.org/10.1002/bult.118)

Falaki, A., Ogunlade, Israel & Oladele, O.I. & (2008). Information needs and seeking behavior among Urban farmers in Kwara State, Nigeria. *University of Dar es Salaam Library*

*Journal*. 8. doi:10.4314/udslj.v8i1.26648

Hektor, A. (2003). Information activities on the Internet in everyday life. *The New Review of Information Behaviour Research*, 4(1), 127-138.

Kopiyawattage, K., Roberts, T., & Warner, L. (2018). Information needs and information-seeking behaviors of urban food producers: Implications for urban Extension programs. *Journal of Agricultural Education*, 59(3), 229-242. doi:

10.5032/jae.2018.03229

Morehart, P. (2019). International Innovators: ALA Presidential Citations honor forward-thinking global libraries. Retrieved from

<https://americanlibrariesmagazine.org/2019/07/17/international-innovators/>

National Sustainable Agriculture Information Service, Urban Agriculture (n.d.). Retrieved from

<https://attra.ncat.org/urban-agriculture/>

## Urban Community Gardeners & Farmers: Growing Produce in Digital Age Cities

Panahi, S., Watson, J., & Partridge, H. (2016). Information encountering on social media and tacit knowledge sharing. *Journal of Information Science*, 42(4), 539-550.

RUAF Foundation (n.d.). Retrieved from <https://www.ruaf.org/>

Stebbins, R. (2001). Serious leisure. *Society*, 38(4), 53-57.

University of California Agriculture and Natural Resources (n.d.). Retrieved from <https://ucanr.edu/>

Walter, P. (2013). Theorising community gardens as pedagogical sites in the food movement. *Environmental Education Research*. 19(4), 521-539, doi:10.1080/13504622.2012.709824