Literature Review Matrix Template
Josh Simpson
INFO 200

Define the Information Community and explain the significance of studying the information behaviors of this group (e.g. why is this research important).

I have chosen to study urban community gardeners and farmers because I believe they are engaged in a meaningful endeavor that links many important topical issues: health and nutrition, neighborhood beautification, community resilience and development, connecting with natural environments, social equity, and sustainable local food systems, among others. I am interested in learning about the information needs and behaviors of this community, with a focus on how those needs and behaviors change as community gardeners gain experience, learn, make new connections and potentially take on both garden planning and management roles as well as related activist commitments.

Statement of Research:

My culminating research paper on urban community gardeners and farmers will hopefully bring to light insights into how this community seeks, encounters, accesses, uses, creates and publishes information related to the practice of urban gardening / farming and connected social and environmental issues. Because there is little scholarly research on the information behaviors of urban community gardeners, at certain points I will necessarily resort to making inferences about their information needs and interests based on the voluminous resources available online for this community in all its diversity. These resources span a large gamut from basic gardening techniques, project planning and design to policy issues, advocacy and activism.

THEY SAY*						I SAY*		
Author/ Date	Main Idea(s)	Theoretical/ Conceptual Framework	Methods	Results & Analysis	Conclusions	Comments (Your Analysis)	Future Research Implications	Information Professional Practices Implications
Kopiyawattage, Warner & Roberts (2018)	With information that is relevant, up-to-date and meets their needs, urban food producers adopt beneficial new ideas and technologies.	Urban food producers use various sources of information. Identifying these different sources of information used is important for information dissemination by co-operative Extensions.	Mixed method: questionnaires and semi-structured interviews.	The most needed information for urban farmers were related to increasing production, pest and disease control, marketing and business management, grants and other funding.	Extension needs to focus more on electronic and other visual media to disseminate information to urban producers	Urban food producers prefer receiving information about farming best practices through (some) internet sources, including email and social media, as well as from strong ties and in-person / on-farm training sessions with Extension agents.	Further studies into the most effective digital and online information delivery services are needed. Similar studies should be performed in other urban areas to confirm general accuracy and relevance of findings.	Potential for collaboration with University Co-operative Extension programs to make a searchable interface to database of technical and other documents (case studies, business resources, etc.). Library reference staff should be aware of Extension programs in order to refer library patrons to those programs.

Desjardins, Neustaedter, Wakkary, & Wang (2015)	Community gardeners collaborate in three main ways: information & knowledge sharing, scheduling work activities, and gaining / fostering awareness about resources.	Identify key considerations for designing technologies for community collaboration in community gardens.	Observations made in six community garden sites in Vancouver, and ten semi-structured interviews of gardeners	Community gardeners largely prefer collaboration on site rather than talking about gardening away from the site. Successful tools for scheduling or information sharing required no new competences to be learned, preferring those tools that are simplest and thus the most inclusive.	Designing technologies for community gardens should consider volunteerism, competences and inclusion, synchronicity, telepresence, control, shared language, and collective ownership.	Volunteer community gardeners display preferences and creativity vis-à-vis technologies and non-digital tools for collaboration, learning and sharing information. While some online tools – the ones that require the least effort to learn and use – are embraced, they do not replace a preference for face-to-face interactions in certain contexts.	A larger sample size that cuts across different geographic and socioeconomic lines could reveal more effective tools (digital and non-digital), insights into information needs, and development of community garden design principles.	Resources for novice volunteer gardeners could be collated into some kind of online portal encompassing how-to guides, directories of gardens and various other informational resources. Libraries with public gardens could offer hands-on instruction, tours, and opportunity to meet other gardeners. Libraries could also offer training on online tools frequently used in community gardens settings: Google docs, group

								scheduling software, etc.

Batte & Diekmann (2009)	Farmers have extensive informational needs, and they use a variety of search strategies to stay current on topics related to their businesses	Search strategies employed by farmers, topics they seek information about, and their preferred sources of information correlate with demographic, socio-economic and business-related factors	Mail survey of farmers in Ohio in 2007. Statistical analysis of data collected.	Survey respondents were clustered into 4 groups, ranging from high to low-search. This revealed patterns in search strategy based primarily on farm size, and to a lesser but still meaningful extent on age and education level.	Information regarding crops, livestock, farm economics, environment and conservation, and family were of high interest to farmers. Overall, at the time the surveys were completed (2007), electronic media was the least preferred information delivery method.	Information is becoming ever more instrumental and sought after in the agricultural sector. This trend is reshaping farming in profound ways. Interestingly, this study found that farmers operating the largest farms had the highest search strategies in terms of frequency and variety of resources. Other preferences skewed along age and education lines, suggesting a longer-term trend towards increasing online search and social media use.	The study was based on surveys mailed out in 2007. One would expect significantly more familiarity with and use of online media over a decade later. While the sample size was fairly large, similar studies should be performed in other parts of the country. The study makes clear that a broad range of information sources used by farmers should be considered when analyzing their information needs and info seeking behavior.	With the segmentation this study provides - one defined by four levels of "search strategies" from high to medium (offline), medium (online), and low, as well as a wealth of details about the preferences of farmers for different types and packaging of information, and these preferences correlation to a variety of data points - information professionals could tailor content for these specific segments, whether as part of a marketing, educational or

								other kind of outreach campaign.
Falaki, Ogunlade, & Oladele (2006)	Farming in urban areas of Nigeria provides vital supplemental income, mainly to an educated & employed demographic. The information needs of this group are urgent and focused, yet use of the internet is low	Urban farming is practiced globally and helps solve problems related to entrenched poverty and food shortages. Studying farmers informational needs can help institutions working in agriculture to access pragmatic and up-to-date information	Questionnaires sent to 100 urban farmers. Data analyzed using descriptive statistics.	The majority of urban farming practitioners were employee, educated and middle aged. Urban farming is also an economic coping mechanism for middle and low-income households. Farmers rely mainly on their own experience and personal networks, but they were also aware of and used other sources of information, including institutional programs	Urban farmers could benefit greatly from the knowledge available from agriculture extension programs. The most pressing information needs of urban farmers in Nigeria are related to disease and pest control and credit / subsidies for financial support.	Large scale urbanization – migration from rural areas to cities – is creating economic hardships in Nigeria, and the developing world generally. Urban agriculture and livestock raising offer one tangible remedy to economic / natural resource / food cost inflation pressures. Much more could be done by agriculture extension programs and other actors in the food system to disseminate knowledge and ultimately increase yields	More research in different locations with larger sample sizes designed to collect and analyze data from urban farmers about their information needs could assist planners in policy decision making. Comparing results from different cities and countries with attention to the context of government policy may shed light on the relationships between policy and farming practices.	Agriculture extension programs may not employ information professionals per se, but they are information providers concerned with marketing and packaging information for maximum impact on its constituents, including urban farmers. According to this study, opportunity exists to improve the awareness and accessibility of information geared towards urban

						of urban farms. Beyond supplementing individual farmers' incomes, more urban agriculture could also relieve severe food price inflation and food shortages in cities.		farmers, perhaps by integrating resources currently fragmented across numerous organizations and programs through websites or information "desks" run by local government agencies.
Cui (2014)	Farmers markets are using Facebook business pages as an inexpensive, direct & rapid marketing channel, and also as a social hub to foster engagement, conversations and relationships between markets, vendors / growers,	Social media is fundamentally changing the way that farmers markets are reaching various stakeholders: vendors / growers, customers and the wider community. With attention to platform analytics, social media presents a unique	Use of Facebook API (Application Programming Interface) to extract data from the Cedar Park (TX) farmers market's Facebook page, which was then coded and statistically analyzed. Data points tracked included number of fans, details about	Facebook data from Dec 02/10 to 12/13 revealed steady growth in # of fans, and frequent posts and interactions by the market, vendors and customer. Evolving skill in creating FB content by the market in terms of timing and type of posts	The CPFM Facebook page acted as a hub to provide a platform that allows sharing of ideas, thoughts, and concerns, and facilitates people's engagement in conversations of various topics. Facebook pages offer an efficient and effective marketing	Facebook pages (and perhaps other social media platforms) represent a robust and affordable opportunity for farmers markets to promote their activities and connect with customers, vendors and their community, and more to the point of my research	The Facebook API has certain limitations in terms of the data which can be scraped about a page which is owned by a third party: traffic count, impres-sion, demographics of fans, active fans, and number of people who browsed the page on a	Librarians should think about ways to associate resources related to community gardens, local farms, and local farmers markets with these organizations' social media channels; e.g.- if they offer a web portal or page dedicated to local information,

	communities and customers.	opportunity for markets to better understand their customers and vendors.	individual FB timeline posts, their timing and format and the engagement they generated (likes, shares, comments), etc.	was demonstrated.	platform for both the farmers market and its vendors.	project, opportunity for growers / vendors as well, some of which will be community gardening entities. Community gardens that do sell produce locally should both create their own social media presence and participate on farmers markets social media pages.	particular day are invisible to the API. If it were possible for researchers to collaborate with the owners of farmers markets FB pages, this would afford new insights. New data-mining tools could add more context such as message classification, topic detections and content analysis	links to the above could be included. Perhaps a non-digital community bulletin board could provide a similar function.
Bickford, Mushi, Ramos, Torquati, Trinidad (2019)	With messaging based on localized research, garden planners can engage and persuade communities about the benefits of	Community-based participatory research (CBPR) is a collaborative endeavor that offers methods for gaining insight into a community's	Bi-lingual survey based on University Extension materials and other community garden collaboratives which garnered 218 respondents,	More than 90% of responders approved of the idea of the community garden project and believed it would be beneficial to	Asking community members for their perspective about a community garden, how they would like to be involved, why they think a	Community garden planning and implementation can benefit greatly from soliciting the opinions and ideas of local residents, involving them in the planning	Future research might look at alternate methods for collecting data from local communities designed to increase participation. It would also	Libraries, with their relationships, partnerships and capability for community outreach are in a position to help conduct "community-

	community gardens, expand community participation, and develop strategic partnership with local organizations	perceptions of a local project's (like a community garden) potential benefits, getting them involved in the planning stages, both of which can improve project designs and outcomes, and sustaining their investment in the project.	followed by statistical analysis.	the community. There were different trends along age lines on the question of whether the respondent wanted to be involved in hands-on gardening and committee involvement (more likely for the under 40 yo) vs donating money and supplies which skewed towards older responders.	community garden is beneficial, and what types of functional attributes they would like to see helped the planning committee to frame messaging, encourage others to get involved in the planning process and solicit support for the project.	/ design process, and identifying neighborhood assets. This community input and engagement allows for the prioritizing of messaging strategies by project leaders that aims to spark interest, excitement and long-term involvement in the garden project.	be valuable to follow up on this study, or similar ones based on participatory research, years later to track whether community engagement was sustained or not.	based participatory research" initiatives by organizations in the planning stages of a new development project.
ATTRA – Sustainable Agriculture Program (2019)	Urban agriculture is reshaping our cities, and urban farmers and gardeners are creating new opportunities for increasing the economic,	Not applicable	Not a scholarly article using research methodologies, but the purpose of the site is to provide information and resources specific to	Not applicable	There are many benefits to growing food in urban areas, and these benefits are being realized by communities, policy makers, and food-	This site has the largest collection of links to resources pertaining to urban agriculture that I've found online. These links are well	Not applicable	This site sets a high bar for information professionals thanks to its very extensive collection of resources. Certainly, it should be

	social, and environmental effects of growing food in and around cities.		urban gardening / agriculture.		system entrepreneurs.	organized, mostly pragmatic in nature, and include instructional PDFs and multimedia, links to relevant publications and websites categorized by topics ranging from business and financing for community farms and gardens to zoning issues, soil and livestock, among others.		recommended by reference librarians who have been approached with research questions about community gardens / urban farms.
RUAF Foundation (2019)	Large research, publishing, training, networking and planning non-profit organization with global focus on developing sustainable cities through resilient and equitable	Not applicable	Not a scholarly periodical but RUAF publishes extensively on topics of concern to urban gardeners, particularly those involved in planning& policy work at the local government	Not applicable.	Through participatory research & planning, application of policy expertise and global partnerships, progress can be made on reducing urban poverty, enhancing urban food	Urban agriculture and sustainable cities programs constitute a global movement that can nevertheless benefit from more internationally oriented policy development and	Not applicable.	Information professionals with expertise or interest in local, national and global policy issues related to urban gardening / agriculture would find a great deal of value in the RUAF

	urban agriculture and urban food systems.		and NGO level. Also covers pragmatic topics. One of the few sites with an explicitly global lens, integrating case studies of innovative projects with research and resources.		security, improving urban environmental management and stimulating participatory city governance.	intervention, research, planning, publishing and partnerships. Ties between global and local actors are a promising area of development which may enhance the effectiveness of urban agriculture projects on micro and macro scales.		Foundation's website and publications. Practical information can also be found on the site and its Urban Agriculture magazine archives. The magazine publishes non-peer reviewed but scholarly research articles on topics relevant to both agriculture practitioners and policy analysts / makers, and should therefore be considered by librarians and information professionals as a solid secondary source for research.

List of Resources included in the Literature Review Matrix in APA Format:

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

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.

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

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

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

National Sustainable Agriculture Information Service, Urban Agriculture (n.d.). Retrieved from https://attra.ncat.org/urban-agriculture/

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