

April 2020

The Art and Science of Networking Extension

Noelle Harden
University of Minnesota

Jamie Bain
University of Minnesota

Stephanie Heim
University of Minnesota

Laura Bohlen
University of Minnesota

Emily Becher
University of Minnesota



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Recommended Citation

Harden, N., Bain, J., Heim, S., Bohlen, L., & Becher, E. (2021). The Art and Science of Networking Extension. *Journal of Extension*, 58(2). Retrieved from <https://tigerprints.clemson.edu/joe/vol58/iss2/26>

This Feature Article is brought to you for free and open access by TigerPrints. It has been accepted for inclusion in *Journal of Extension* by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.

The Art and Science of Networking Extension

Abstract

As Extension professionals are increasingly tasked with moving beyond program delivery into the murky realm of systems change, networks represent an essential organizing framework for this transition. In this article, we examine the ways in which networks are becoming a modern mode for social change. By providing examples from our work with food networks, we demonstrate how these collaborative approaches can produce a greater impact for Extension and the communities we serve. Lastly, we discuss the critical characteristics of successful networks and the role Extension can play in their optimization.

Keywords: [networks](#), [cross-sector collaboration](#), [food system](#), [wicked problems](#), [grand challenges](#)

Noelle Harden

Health and Nutrition
Extension Educator
University of
Minnesota Extension
Center for Family
Development
Moorhead, Minnesota
harde073@umn.edu

Jamie Bain

Health and Nutrition
Extension Educator
University of
Minnesota Extension
Center for Family
Development
Minneapolis,
Minnesota
jbain@umn.edu

Stephanie Heim

Associate Program
Director
University of
Minnesota Extension
Center for Family
Development
Rochester, Minnesota
heim0106@umn.edu

Laura Bohem

Health and Nutrition
Extension Educator
University of
Minnesota Extension
Center for Family
Development
Saint Paul, Minnesota
bohe0006@umn.edu

Emily Becher

Applied Research and
Evaluation Team
Research Associate
University of
Minnesota Extension
Center for Family
Development
Saint Paul, Minnesota
bech0079@umn.edu

Why Networks?

Historically, Extension's role has been to adapt, translate, and deliver university research in order to improve quality of life for all. Educational programs have been created for a countless number of settings to foster the transmission of information, often viewed as the flow of knowledge from the educated expert (i.e., the Extension agent or educator) to the uninformed participant (Raison, 2010; Wise, 2017). This approach has been successful when problems and solutions are clearly defined or quantified—for example, determining how to boost grain yields, increase the number of vegetables a child can identify by sight, or improve a parent's ability to understand a nutrition facts label. This model of behavior change fails, however, to address complex issues such as world hunger, the obesity epidemic, or many other "wicked

problems" that are too large and multifaceted for any one expert, or single organization, to fully comprehend (Morgan & Fitzgerald, 2014).

Solutions to these kinds of problems require coordinated action between people of widely different backgrounds and perspectives to effectively change systems. In other words, networks are needed (Plastrik, Taylor, & Cleveland, 2014). In this article, we draw on examples from our professional experience and the literature to make the case for networks as the future of Extension's work as it pertains to improving systems of the 21st century. We propose that networks are key because (a) networks represent a contemporary mode of organizing data and people, (b) networks change systems, and (c) networks counteract the centralization of power in society.

Networks Are the Future

A network is simply a "group or system of interconnected people or things" (Lexico, 2019, "network"). One need not look far to find examples of how networks are the dominant organizational structure of the 21st century. The Internet and social media are obvious examples that demonstrate how networks are disrupting the command and control, vertical flow of information emblematic of the expert model—the educational mechanism land-grant universities have traditionally relied on. What may be less obvious are the ways that nonprofit organizations and educational institutions are shifting away from hierarchy and buying into the network mind-set through peer-to-peer learning, interorganizational resource sharing, and innovations related to the open-source concept, such as the massive open online course (Kop, Fournier, & Mak, 2011). In their 2014 book *Connecting to Change the World*, Plastrik et al. (2014) made the case for networks as an organizational survival strategy in this brave new world where resources such as time, money, raw materials, and mental bandwidth all seem to be diminishing and duplicative programs are impossible to sustain.

Perhaps tired of hearing refrains such as "Why call Extension when you can ask Google?," Extension professionals also are beginning to embrace network building and other facilitative practices as the future of our institution (Morgan & Fitzgerald, 2014). Furthermore, funding and staffing constraints affecting both Extension and our organizational partners often require us to serve better and deliver more by being more efficient and resourceful. To meet these demands we need a different approach, one that networks can provide.

We work with dozens of networks across the state of Minnesota that bring together diverse groups of people to positively influence the food system. This work has burgeoned from a growing recognition shared by funders, partners, participants, and staff that a focus on educational strategies to address nutrition is not enough to reverse growing rates of diet-related chronic disease (Morgan & Fitzgerald, 2014). Teaching evidence-based nutrition curricula, demonstrating proper knife skills, and inspiring children to garden are all important ways to create a culture of healthful eating but do little to alleviate many of the causal factors of hunger or obesity related to social determinants of health (Morgan & Fitzgerald, 2014). Furthermore, these kinds of direct-service programs reach only a small proportion of the population that could benefit from them, and large increases in funding for nutrition education programs to expand their reach likely is not on the horizon (Morgan & Fitzgerald, 2014).

Networks offer a way for organizations such as Extension to be nimble, adaptive, and strategic with limited resources (Plastrik et al., 2014). By applying skills possessed by many Extension professionals, such as

meeting facilitation, agenda development, and strategic relationship building, we can be at the forefront of network development and leverage this role to be more innovative. This concept is especially important in the work related to policy, systems, and environmental change that is becoming more prominent in Extension's wheelhouse. By definition, this shift requires our work to focus on changing embedded policies, complex and interconnected systems, and structural environmental barriers. Our own experience with networks has shown that they allow us to both address long-term issues and enact immediate short-term solutions.

By serving as core members of Cass Clay Food Partners for more than 8 years, Extension staff from the University of Minnesota and North Dakota State University, including members of our author group, have engaged in food systems work in new ways. The regional network aims to improve the food system by advising local policymakers, engaging the community in cocreating a regional vision, fostering connections, and reducing duplicative work across a myriad mix of businesses, nonprofits, faith-based organizations, government entities, educational institutions, and individual community members.

Cass Clay Food Partners has recently applied a network approach to address on-farm food waste through creation of GleaND, a volunteer-based program that redirects local produce that otherwise would be wasted to emergency food banks and pantries (GleaND, n.d.). This program grew from an assumption that the problem of food waste in farmers' fields was rooted in a labor shortage during peak harvest season and thus warranted a different approach than other strategies, such as consumer education campaigns or local food policy initiatives. Although there are potential long-term policy solutions, such as surplus produce reimbursements and farmworker protection and wage laws, these take time to enact and are not always relevant at a city or county scale. Because the network was not bound to one particular program or policy initiative and because it could leverage the collective wisdom and creativity from a diverse group of people representing different parts of the food system, Cass Clay Food Partners conceived of and rapidly implemented a solution presumably faster than one organization could have done alone. In a world where technological and communication systems continue to evolve at an ever faster rate, networks that can adapt quickly and use these tools effectively will be essential for organizations seeking to stay relevant and innovative in the face of future challenges.

Networks Change Systems

Our current offering of Extension programs that focus on direct education are insufficient to solve "wicked problems" or "grand challenges" that are systemic in nature. The food system is a prime example of why it does not work to simply target one component of an issue in isolation. Efforts to teach a family healthful eating will not work if that family cannot purchase nutritious foods in a convenient way at an affordable price. On the other hand, handing out free kale to parents who are unfamiliar with how to prepare the vegetable so that it tastes delicious to their children is also not an adequate solution. Chronic disease and other systemic health disparities warrant a networked approach because of the unknown nature of the problem and the unpredictable nature of solutions (Provan & Lemaire, 2012). Diverse perspectives are essential to develop innovative solutions, to check assumptions, and to increase capacity through networks to experiment with creative approaches while spreading the risk across organizations. In other words, networks avoid the pitfall of putting all the eggs—the risks and rewards of innovation—in one organizational basket.

Within University of Minnesota Extension, Supplemental Nutrition Assistance Program Education is a prominent nutrition education and obesity prevention endeavor. In the last 5 years, the federally administered program has increasingly emphasized efforts to change policy, systems, and environments to support healthful eating and active living. During this time, our partnerships have played a key role in harnessing the power of our networks to bring about systems change initiatives. The Metro Food Access Network (MFAN) includes over 400 food justice advocates in the Twin Cities and was created (and is facilitated) by Extension staff and the network's membership. Started in 2012, MFAN has had a collective impact over time that exemplifies the ways Extension professionals can leverage the resources and collective skill set of an effective network to tackle complex issues such as racial equity and systems change.

MFAN has achieved systems-level results in three significant ways. First, through a comprehensive planning action team, the network supported local units of government to include food access language in their comprehensive plans. By including this language, multiple local governments across the metro region began to formally operationalize efforts to increase food access in their areas. Second, through MFAN, hunger action team relationships among a diverse group of cross-sector partners led to the creation of an intervention for increasing healthful food options and improving client experience at food pantries. This novel approach, funded by a \$3 million grant from the National Institutes of Health, has resulted in food pantries increasing their ability to distribute healthful food and transforming their environments into dignified, welcoming spaces that center on the choices of clients. Lastly, MFAN hosted a series—Critical Conversations on Race—to help network members learn about and address the deep connections between racial inequities and health disparities. This initiative led to increased understanding among partners that racism is a system that infiltrates every aspect of food access (Metro Food Access Network, 2018; Minnesota Department of Health, 2014) and prompted network partners to begin addressing issues of bias and promoting inclusion within their own organizations to better address racial disparities in food access. Each of these three examples effectively changed a policy, environment, or system in a way that also bolsters existing direct education efforts to reinforce positive behavior change.

Networks Decentralize Power

Perhaps the greatest hallmark of 20th-century systems in the United States was the process of centralization. Whether the monetary system, the political system, the food system, or any other, the tendency was for power and decision making to become concentrated in the hands of fewer and fewer individuals, organizations, and businesses (Grusky & Hill, 2018). This produced many benefits, such as the efficient and cheap distribution of food all over the globe (Hendrickson & Heffernan, 2002). Centralization also has created many challenges, particularly in efforts to promote a more just and equitable allocation of resources (Kania & Kramer, 2015). In the 21st century, the resistance to centralized power is readily apparent in movements such as Occupy Wall Street, in the advent of cryptocurrencies, and in the emergence of the sharing economy (Geissinger, Laurell, & Sandstrom, 2018).

Networks, by nature, defy the traditional organizational hierarchies that fundamentally reinforce centralized power structures (Plastrik et al., 2014). Networks empower individuals to work in nonhierarchical and nonlinear relationships across organizations (Plastrik et al., 2014). These relationships create power through social capital, leading to collective action when members feel closely connected to one another (Kania & Kramer, 2011). These relationships, in turn, support the transition to a less competitive environment that

spawns resource sharing and creativity (Provan & Milward, 1995). Networks also foster a sense of safety and a place for members to exchange new ideas and take professional risks beyond what they might experience within their own organizations, thus becoming an ideal place for the diffusion of ideas and innovation (Plastrik et al., 2014).

At University of Minnesota Extension, participatory grant making is a process used for making democratic, decentralized decisions about how funding is allocated (Gibson, 2017). Participatory grant making is fundamentally about the implicit creation of networks. Individuals give funds across organizations, naturally identifying synergies and breaking down competitive barriers as part of the process. We have executed participatory grant making more than five times: externally with food networks in Minnesota and internally through Extension's Issue Area grants and in allocating funding to support individual projects and staff development within the health and nutrition program area. Evaluation data from these efforts have shown, like other studies (Gibson, 2017), that participatory grant making is an effective strategy for increasing collaboration, promoting mutual investment and respect between individuals and organizations that might otherwise feel highly competitive with one another, and potentially creating better outcomes than a traditional model devoid of peer-to-peer interactions between grantees.

Networks and Extension

Networks are powerful social structures that can exponentially increase the reach and impact of our work in Extension. Networks are also complicated and unpredictable. Network theory points toward many characteristics of networks that influence outcomes (Turrini, Cristofoli, Frosini, & Nasi, 2010), but Extension professionals working with networks must balance the science of networks with the art of navigating complex and dynamic social environments through skilled facilitation.

Evidence suggests that networks can be optimized by paying attention to the context (network stability, availability of resources such as time, funding, and personnel), structure (network size, constitution of members, guiding rules and practices), and function (how network structures are being managed and whether they are improving over time) (Turrini et al., 2010). Support such as technical assistance and capacity-building resources can be more influential on network outcomes than simply the presence or absence of grant funding (Provan & Milward, 1995; Turrini et al., 2010). Therefore, Extension staff who can dedicate time and expertise to support network operations through skills such as planning, facilitation, coordination of shared work, and evaluation of impacts are incredibly valuable assets to networks. There are many network evaluation frameworks in the literature that can be applied to assess network effectiveness and determine whether structural or functional changes are needed (Provan & Lemaire, 2012; Termeer, Drimie, Ingram, Pereira, & Whittingham, 2018; Turrini et al., 2010). Whichever framework is used, network principles of trust and transparency guide how a network evaluates its contextual, structural, and functional components.

Working with communities in an authentic, relationship-based way is an art as much as a science and is the essential approach to working effectively with networks. The most successful examples start with Extension building trusting partnerships that engage all people who have a stake in the issue at hand. Relationship building is the foundation of a successful network and therefore the foundation for successful Extension programming. A critical component of these partnerships is ensuring that stakeholders who have less positional power or who have been historically marginalized or overlooked are reflected in the network.

Taking the time to engage diverse partners and building trust with them is critical to long-term network success, as Adrienne Maree Brown suggests in *Emergent Strategy*: "[We must] move at the speed of trust" (Brown, 2017, p. 41). We also have found the triangular framework outlined by Curtis Ogden (2014) to be a powerful tool for understanding the natural progression of network activities. This framework places connectivity (i.e., the relationships between members of the network) at the base of the triangle because such relationships must be solidified before the next level—alignment of values and goals—can be achieved. Only when connectivity and alignment are in place can members effectively join together to implement concrete actions—the pinnacle of the triangle.

Another artful concept that Extension educators must practice is "network weaving." Developed by June Holley (2012), network weaving occurs when leaders intentionally help networks become more integrated through increased connections among members as well as between members and external partners. Extension educators often intuitively engage in network weaving simply by acting as a supportive connector between partners. Network weaving takes this intuitive relational practice and elevates it into a key role that Extension educators can play within networks to improve their function and impact.

A key way to implement network weaving is through facilitation practices that encourage relationship development. At University of Minnesota Extension, we have implemented a highly successful series of 2-day workshops called Cultivating Powerful Participation that have equipped staff and community partners to facilitate dialogues on collective action that can address food justice. Evaluations from the workshops have shown that Extension staff from differing units and roles leave with the skills they need to take on the complex work of network building and weaving. By engaging in both the science and art of building and strengthening networks, Extension professionals can reduce organizational silos and duplication and exponentially increase the reach of our work to effect systems change. In particular, we can harness our unique niche straddling university research and community engagement to hone a new area of expertise in network facilitation.

Our final example of the University of Minnesota Extension's network leadership is the Farm to School Leadership Team's 2016 evaluation report. The report's findings included a compilation of internal challenges and critiques that network members identified during anonymous interviews. Extension staff leaned into 5 years of leadership and relationship building within the network to call on members to openly address the evaluation findings of dynamic tensions aired in the interviews, a strategy that allowed network members to repair relationships and reengage with the purpose of the network. This experience enabled members to build trust with one another and create a common understanding not only of what the network had achieved together but how to make the needed improvements for the network to continue to be effective. Like the Cass Clay Food Partners and MFAN examples, the Farm to School Leadership Team demonstrates how Extension professionals can leverage their role as network leaders to foster collective action, which in each of these cases led to a more healthful and just food system through multiorganizational efforts.

Conclusion

In the years to come, Extension will be expected to continue to adapt methods to effectively reach our audiences. We will be expected to take on roles beyond that of the expert of the past in order to become the change agents of the future. Direct education has been, and will continue to be, a core element of

Extension programming, and can be enhanced through the work of networks and their ability to effect systems change. Now is the time to engage in this complex, collaborative, and political work if we are to continue to be a trusted institution that people look to for guidance in a digital era where there is an endless array of places to turn. If we are going to be successful, we will need to embrace both the art and science of networks.

References

- Brown, A. M. (2017). *Emergent strategy: Shaping change, changing worlds*. Chico, CA: AK Press.
- Geissinger, A., Laurell, C., & Sandstrom, C. (2018). Digital disruption beyond Uber and Airbnb: Tracking the long tail of a sharing economy. *Technological Forecasting and Social Change*.
<https://doi.org/10.1016/j.techfore.2018.06.012>
- Gibson, M. C. (2017). *Participatory grantmaking: Has its time come?* [PDF file]. Retrieved from https://www.fordfoundation.org/media/3599/participatory_grantmaking-lmv7.pdf
- GleaND. (n.d.). GleaND. Retrieved on March 18, 2020, from <https://www.gleand.org/>
- Grusky, D., & Hill, J. (2018). *Inequality in the 21st century: A reader*. Boulder, CO: Westview Press.
- Hendrickson, M. K., & Heffernan, W. D. (2002). Opening spaces through relocalization: Locating potential resistance in the weaknesses of the global food system. *Sociologia Ruralis*, 42(4), 347–369.
<https://doi.org/10.1111/1467-9523.00221>
- Holley, J. (2012). *Network weaver handbook: A guide to transformational networks*. Athens, OH: Network Weaver Publishing.
- Kania, J., & Kramer, M. (2011). Collective impact. *Stanford Social Innovation Review*. Retrieved from https://ssir.org/articles/entry/collective_impact
- Kania, J., & Kramer, M. (2015). The equity imperative in collective impact. *Stanford Social Innovation Review*. Retrieved from https://ssir.org/articles/entry/the_equity_imperative_in_collective_impact#
- Kop, R., Founier, H., & Mak, J. S. F. (2011). A pedagogy of abundance or a pedagogy to support human beings? Participant support on massive open online courses. *The International Review of Research in Open and Distributed Learning*, 12(7), 74–93. <http://dx.doi.org/10.19173/irrodl.v12i7.1041>
- Lexico. (2019). Definition of network in English. Retrieved from <https://www.lexico.com/en/definition/network>
- Metro Food Access Network. (2018). Critical conversations on race in the food system. Retrieved from <https://www.metrofoodaccess.com/critical-conversations>
- Minnesota Department of Health. (2014). Advancing health equity in Minnesota: Report to the Legislature. Retrieved from http://www.health.state.mn.us/divs/che/reports/ahe_leg_report_020114.pdf
- Morgan, K. T., & Fitzgerald, N. (2014). Thinking collectively: Using a food systems approach to improve public health. *Journal of Extension*, 52(3), Article v52-3comm3. Available at:

<https://www.joe.org/joe/2014june/comm3.php>

Ogden, C. (2014). Network development through convening [Web post]. Retrieved from <http://interactioninstitute.org/network-development-through-convening/>

Plastrik, P., Taylor, M., & Cleveland, J. (2014). *Connecting to change the world: Harnessing the power of networks for social impact*. Washington, DC: Island Press.

Provan, K. G., & Lemaire, R. H. (2012). Core concepts and key ideas for understanding public sector organizational networks: Using research to inform scholarship and practice. *Public Administration Review*, 72(5), 638–648. <https://doi.org/10.1111/j.1540-6210.2012.02595.x>

Provan, K. G., & Milward, B. H. (1995). A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly*, 40(1), 1–33.

Raison, B. (2010). Educators or facilitators? Clarifying Extension's role in the emerging local food systems movement. *Journal of Extension*, 48(3), Article v483comm1. Available at: <https://joe.org/joe/2010june/comm1.php>

Termeer, C. J. A. M., Drimie, S., Ingram, J., Pereira, L., & Whittingham, M. J. (2018). A diagnostic framework for food system governance arrangements: The case of South Africa. *NJAS—Wageningen Journal of Life Sciences*, 84, 85–93. <https://doi.org/10.1016/j.njas.2017.08.001>

Turrini, A., Cristofoli, D., Frosini, F., & Nasi, G. (2010). Networking literature about determinants of network effectiveness. *Public Administration*, 88(2), 528–550. <https://doi.org/10.1111/j.1467-9299.2009.01791.x>

Wise, D. (2017). Teaching or facilitating learning? Selecting the optimal approach for your learning objectives and audience. *Journal of Extension*, 55(3), Article v55-3tt1. Available at: <https://www.joe.org/joe/2017june/tt1.php>

Copyright © by Extension Journal, Inc. ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the [Journal Editorial Office, joe-ed@joe.org](mailto:joe-ed@joe.org).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)