Community Development in the Digital Age: Role of Extension

Abstract

With the digital age in full swing, helping rural communities transition to, plan for, and prosper in digitally minded ways is critical. This article describes an innovative outreach process that relies on asset-based community development and the intelligent community concept. More importantly, the process relies heavily on Extension personnel and resources. This outreach process consists of four steps and is community driven. Results indicate that Extension programs and resources have helped small, rural communities begin this important transition.

Keywords: digital age, digital divide, community development, asset-based, Extension

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Introduction

The digital age is in full swing. The social and economic landscape is changing quickly, with disruptions affecting government, businesses, and individuals alike. This changing landscape presents opportunities and challenges for both Extension and the communities Extension serves. Transitioning to a digital mind-set is a must, especially for rural communities, because digital applications—such as telehealth, online education, crowdfunding, and telework —are becoming critical for community development and quality of life and have the potential to level the playing field between urban and rural communities (Gallardo, 2016). But how can rural communities plan for and transition to a digital mind-set?

This article introduces an innovative outreach program that is targeted to rural communities and intended to help them transition to, plan for, and prosper in the digital age. Developed by the Mississippi State University (MSU) Extension Service's Intelligent Community Institute, the program is based on the community development self-help, asset-based approach and the "intelligent community" concept. We explain it in detail here with the objective that other Extension services may replicate it.

First, we briefly discuss the community development literature, the intelligent community concept, and the link between the two. Next, we examine the Intelligent Community Outreach Program (ICOP) in depth and share

results and lessons learned. We conclude by discussing limitations and next steps.

Background

In defining community development, several elements of a community itself are worth discussing. A community, besides serving as a geographic locus for a group of people, provides multiple functions, ranging from the social to the economic (Warren, 1987). These functions rely on political, economic, educational, and family institutions (Anglin, 2011). The interaction among community institutions results in linkages, both horizontal (among local organizations) and vertical (with external organizations), that define the capacity of a community to identify issues and mobilize assets (Robinson & Green, 2010).

Community development is a complex process understood as a practice-based profession and academic discipline concerned with the organization, education, and empowerment of people within their communities (International Association for Community Development, n.d.). The definition used for the purposes of this article centers on the idea of "a group of people in a locality initiating a social action process (i.e., planned intervention) to change their economic, social, cultural, and/or environmental situation" (Christenson & Robinson, 1989, p. 14). The key concepts here are *people, planned intervention,* and *change*. In other words, "community development is all about people planning to change a specific situation in their communities through a process" (Gallardo, 2016, p. 9).

Multiple approaches to community development exist, but here we discuss only two: *technical assistance* and *self-help.* Technical assistance is an approach in which an expert, typically an outsider, completes a strategic plan or feasibility study for the community. Though technical assistance is often justified and necessary, it focuses only on identifying needs and rarely builds community capacity, potentially making communities dependent on external players (Robinson & Green, 2010).

The self-help approach, by contrast, focuses on empowering communities to address issues themselves. The role of the community developer or change agent is to facilitate the process and to build and increase community capacity. This approach assumes that residents have the skills and motivation to discuss issues and implement action plans, and it can be a lengthy process. It is often more effective when combined with other community development approaches, such as technical assistance (Robinson & Green, 2010). In other words, the self-help, asset-based approach to community development engages residents in identifying and mapping underutilized assets and, through a relationship-driven process, leverages these assets to address community issues (Kretzmann & McKnight, 1996).

With regard to the topic of this article, the community issue is transitioning (or adapting) to the digital age using the intelligent community concept as a roadmap, an approach that allows community assets to be mapped and supports implementation of an action plan. The self-help approach holds the most potential for community development in the digital age for two reasons. First, this transition requires an inclusive team effort. Self-help provides a mechanism for bringing people together when mapping community assets. Second, many rural communities do not realize that they possess assets that can be leveraged. Self-help allows community members to focus within to understand their own assets, thereby boosting community self-esteem and strengthening community networks. For example, the local library may have computers available, but community members may fail to see how this resource could be used to reduce the digital divide through the offering of digital literacy workshops. Also, self-help can be coupled with technical assistance efforts—such as a technical and feasibility plan to deploy a Wi-Fi hot spot in the downtown area—to maximize impact. This asset-based strategy has been

successfully deployed to attract and retain young people in northern Wisconsin (Andresen, 2011).

An intelligent community is one that understands the challenges of the digital age and takes conscious steps to prosper in it (Bell, Jung, & Zacharilla, 2014). According to the worldwide think-tank Intelligent Community Forum, intelligent communities are characterized by six indicators: broadband connectivity, knowledge workforce, innovation, digital equality, sustainability, and advocacy (Intelligent Community Forum, 2015). Four of these six indicators could be considered "traditional" community economic development indicators. The innovation of the intelligent community concept is that it incorporates digital age–related indicators—broadband connectivity and digital equality—with traditional community economic indicators, resulting in a more robust lens through which to examine a community.

Among other things, intelligent communities

- promote broadband deployment and adoption,

- engage digitally with their residents,

- forge partnerships that lead to innovations,

- encourage local institutions to cooperate with one another,

- use mechanisms to develop and sustain a knowledge workforce,

- promote their communities consistently and strategically online, and

- actively work to reduce the digital divide.

Most importantly, an intelligent community thinks and acts digitally, taking advantage of the benefits of the digital age while proactively dealing with the accompanying challenges.

In summary, it becomes clear that any community development effort in the digital age needs to

- be community driven,

- focus on internal assets rather than needs, and

- have a local, trusted facilitator and/or champion.

This last point is critical. Many rural communities are hesitant about change, and those understanding that change is necessary change at a slower pace than do urban communities. Therefore, only trusted local individuals, such as local Extension educators, are able (a) to advocate for the need to adapt to the digital age and (b) to introduce a strategy to do so. The program we describe here aligns perfectly with the three Extension community development priorities identified in 2009: building economically viable communities, renewing civic engagement, and enhancing community decision making and governance (Beaulieu & Cordes, 2014). Further, the program capitalizes on the opportunities Internet use creates for Extension and rural communities as documented in a rural health care information access study (Das, Leatherman, & Bressers, 2015).
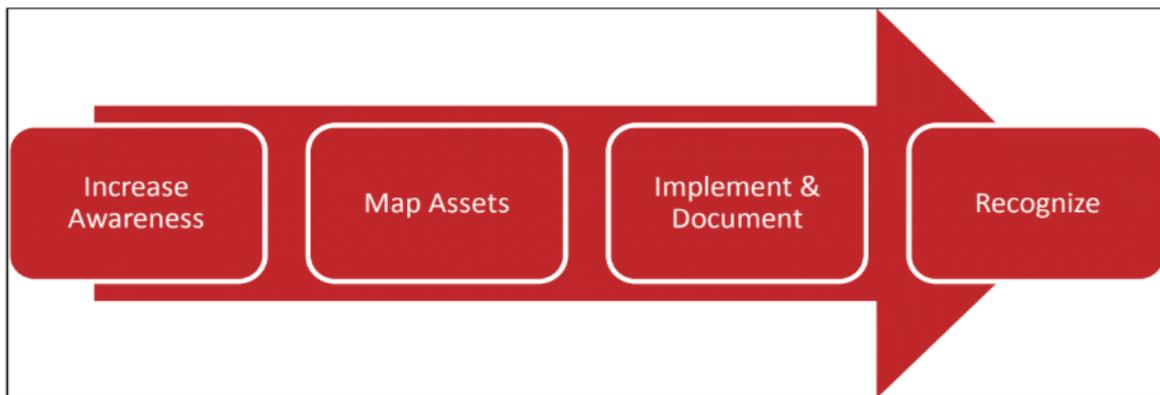
ICOP

ICOP involves use of the asset-based community development approach to identify assets and/or needs related to the digital age as well as application of the intelligent community concept. An important element of ICOP is that the community is the driver. The change agent facilitates and supports, but the community itself is responsible for keeping the process moving. It is important to recognize that community development is a lengthy and complicated process; any community interested in ICOP must understand that the process can take several years.

Community developers can be county Extension personnel or other local champions such as mayors, business leaders, or economic developers. The roles of local Extension personnel can range from facilitator (getting the right people to the table, jump-starting the process) to educator (implementing and deploying Extension programs and resources) to local champion (spearheading the effort). These roles are in addition to Extension state-level specialists' developing and/or adapting curricula to address the needs identified during the process or providing technical assistance. The key is to have a local champion or champions to introduce, facilitate, and oversee the process.

The process used in ICOP involves four steps, shown in Figure 1.

Figure 1.
Steps in the Intelligent Community Outreach Program

Increase Awareness

The asset-based approach to community development assumes that residents have the skills and motivation to plan for change in their communities. For this reason, the first step of ICOP is to increase awareness, through education as well as formal and informal conversations and presentations, among various community groups of the benefits and challenges of adapting to the digital age and how the intelligent community concept fits into the process as a roadmap. Increasing awareness can take place through informal conversations with community leaders and/or presentations to local churches, civic organizations, chambers of commerce, and public meeting audiences.

Conversations or presentations for increasing awareness should address the characteristics of the digital age; ways in which these characteristics are transforming the social and economic landscape through innovation; and current applications, such as telehealth, telework, and crowdfunding. In addition, it must be made clear how and

where the intelligent community concept fits. Most importantly, awareness efforts should clearly answer the "so what?" questions community leaders and residents will have. Critically important is to emphasize that this process is not expensive. If community members have the will and the motivation, they can learn to leverage digital platforms, tap into volunteer efforts, and find the resources to make the transition with minimal investment of funds.

The objective of this step is to get community leaders and residents on the same page. This step is crucial for two reasons. First, without awareness, nothing can be meaningfully discussed, much less planned for or implemented. Second, involving different community groups in the awareness phase can lead to community leaders" and residents' feeling ownership of the initiative. This feeling of ownership is critical to sustaining it over time. After this step is completed successfully, it is up to the community to decide whether to proceed to the asset mapping step.

Map Assets

When key leaders and residents of the community agree that transitioning to the digital age is important, mapping assets is the next step. The local champion must complete the asset map as accurately as possible. Obviously, one individual may not have all the answers, but he or she can get the answers from others in the community. This process is modeled after a traditional economic development request for information (RFI). No matter how small a community is, the local champion and/or group involved in ICOP is likely to be familiar with an RFI.

The asset map is a questionnaire divided into six sections, one for each intelligent community indicator (see the questionnaire at http://pcrd.purdue.edu/checklist). It is important that sufficient time be invested in responding to the questions as accurately as possible. If a respondent indicates that a community has a particular asset, the respondent should include a brief narrative providing more information on who is responsible for the effort and how they are doing it. For example, if the response regarding coding efforts in the community (under the knowledge workforce indicator) is *yes*, the narrative should indicate all entities conducting such efforts and how they are doing so. This narrative identifies community assets (as well as needs) and makes clear who is responsible for what, helping to prevent turf wars and duplication of efforts.

Once the asset map has been completed, the Extension educator or specialist prepares a report consisting of three sections. The first section is the Intelligent Community Asset Gauge. This gauge visually compares the community with an ideal digital-minded community. An ideal digital-minded community has a score of 100 for each indicator. Figure 2 shows the Intelligent Community Asset Gauge for a Mississippi community having a score of 34, about one third that of the ideal digital-minded community. Although some efforts are under way regarding advocacy, digital equality, and broadband connectivity, the community needs work on innovation, knowledge workforce, and sustainability.

Figure 2.

Example of an Intelligent Community Asset Gauge
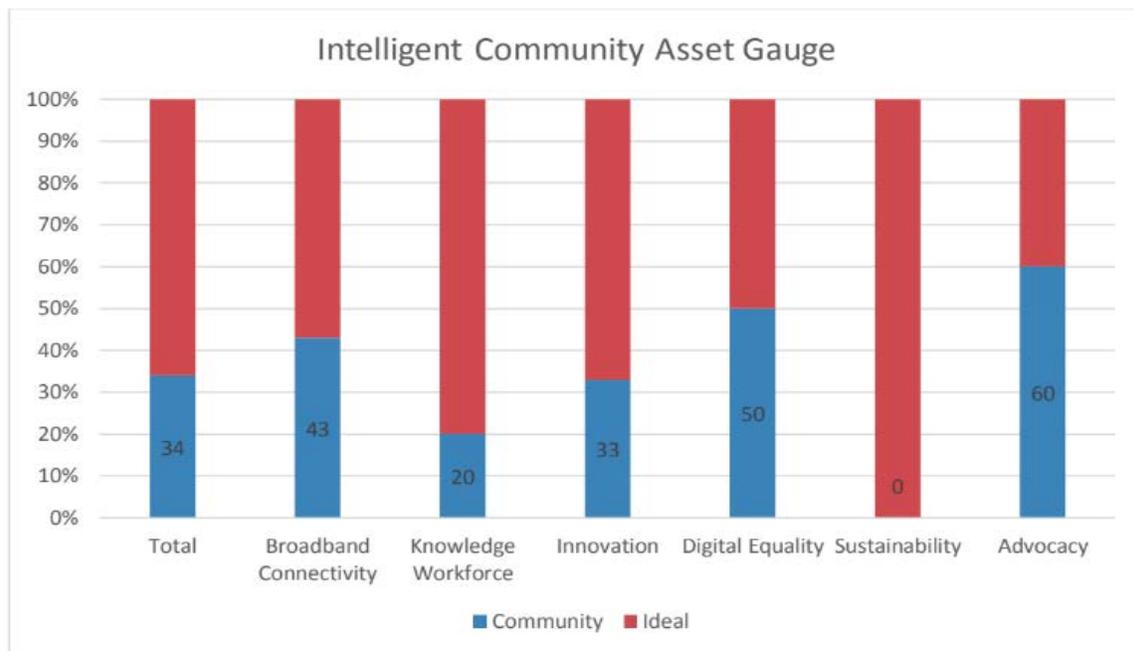
Source: Mississippi State University Extension Intelligent Community Institute

The second section of the report consists of recommendations. These recommendations are of two types: *document* and *initiate*. *Document* recommendations focus on documenting current efforts in the community. For example, if entrepreneurship programs exist, a *document* recommendation would ask the community to record the number of participants in the programs and the number of businesses launched. *Initiate* recommendations focus on encouraging the community to launch efforts to address a community need. *Initiate* recommendations can include best practices from communities around the world that have embraced a digital mind-set. For example, an *initiate* recommendation may suggest starting conversations with Internet providers to establish a downtown Wi-Fi hot spot or with the local Extension office to start or expand a 4-H robotics program.

The numbers of *document* and *initiate* recommendations varies by community. At this point in the process, available resources should be showcased as potential tools the community can use. For example, perhaps Extension has a program that offers digital literacy workshops. This resource would be addressed in the recommendations pertaining to digital equality. In this example, Extension can not only facilitate this process but also provide needed resources.

After the report is discussed with the local champion and community leaders, priorities are identified from the list of recommendations. The third section of the report is a 6- to 12-month action plan that lists the recommendations identified as priorities, key people responsible for their completion, and detailed actions to be taken. In the end, the most important components are accurately completing the asset map, engaging the community in identifying priorities, and listing or developing relevant Extension programs and resources.

Implement and Document

The implementation and documentation phase takes the greatest amount of time and depends on multiple partnerships. Outputs and outcomes of existing efforts, captured under the *document* recommendations, need to be monitored and recorded. Monitoring will make it easier to gauge progress and to identify short-term impacts, thereby boosting community morale. Sharing and celebrating short-term impacts is critical to keeping the process going. Otherwise, frustration may overcome motivation, derailing the effort.

For recommendations to be initiated, a team effort is required. Here again, Extension plays a critical role in facilitating or in directly delivering resources or programs toward the effort. Extension can also reach out through its own network or to non-Extension partners for assistance. Any effort that is initiated must be monitored and recorded, as well. Setbacks will occur, but if the awareness phase was effective and the asset map and prioritization tasks were truly inclusive, challenges will be more easily overcome.

Recognize

Once sufficient outputs and outcomes have been documented, the Extension educator or specialist can submit a community nomination to the selection committee for the annual worldwide Intelligent Community Awards. The community also can focus on disseminating its story to neighboring communities, statewide agencies, or federal agencies. The message is clear: If the community managed to work as a team and transition to a digital mind-set, the community is worth investing in.

It should be noted that the course of action described here is not the typical one, in which external investment is pursued first to develop the community. Rather, the community works together first to transition to and plan for the digital age and later to attract external attention and investment. Internal recognition should come before any external recognition.

Results

ICOP was launched as a pilot program in spring 2014 in a small, rural Mississippi community and grew from there. The process continues to be fine-tuned on the basis of feedback from the communities involved and their levels of engagement and responsiveness. These refinements have the overall objective of ensuring that the process is community-driven and feasible to implement, even for those communities with part-time mayors and few resources.

As shown in Table 1, a total of eight asset map reports had been completed in Mississippi as of April 2017, and, for six of those, the report had been discussed with the community, recommendations had been prioritized, and action plans had been drafted. In other words, six Mississippi communities identified priorities and established action items. Of the 60 prioritized recommendations (action plan items), 18, or 30%, had been initiated or completed. More importantly, of the 18 recommendations initiated or completed, 16 involved Extension programs and resources.

For the six Mississippi communities active in ICOP whose data are shown in Table 1, the average 2015 population was 11,721. The largest community had a population of 40,507, and the smallest had a population of 2,197. These are small communities, yet they are motivated and have been able to align their resources to begin the transition to the digital age.

Table 1.

Intelligent Community Outreach Program (ICOP) Results

ICOP participation item	Number
Mississippi asset map reports	8
Action plans	6

Action plan items	60
Initiated/completed	18
Extension-related action items	16
Average 2015 population	11,721
Source: Mississippi State University Extension Intelligent Community Institute	

The Extension programs and resources provided to these communities include building of municipal websites, trainings and technical support for entrepreneurs and small business owners regarding online presence strategies, a program in partnership with students from the MSU Department of Communication to proactively manage the online reputation of participating communities, management of tech-savvy volunteers placed in community anchor institutions, telework training and placement by Extension instructors, and digital literacy workshops conducted by Extension agents or specialists.

In addition, guided by the action plans drafted by the communities themselves and deploying all available resources, parties involved achieved the following successes:

- One 3-D printer was placed in a public library.

- Two Wi-Fi hotspots were installed by third parties.

- Community-wide Wi-Fi hotspots were mapped.

- 18 Dash and Dot Wonder Packs were delivered.

- 100-plus computers and tablets were donated.

- 113 digital literacy workshops reaching 940 people were completed.

- $335,000-plus in external funding was secured.

- Six new or enhanced Extension programs were initiated (Virtual Incubator Program, Master Technology Innovator, Municipal Websites, E-Front Door, Digital Works, and 4-H Robotics).

Conclusion

Community development is a lengthy, complex process. Communities that decide to implement ICOP must understand that setbacks will occur and that moving the needle will take some time. Time commitment and motivation from local leaders and residents are the most important investments from the communities. The majority of participating communities in Mississippi have been small, and almost all of their initiated/completed action items have been the result of Extension resources and programs. This circumstance clearly demonstrates that Extension remains relevant in tackling 21st-century issues.

Most of the results presented here are outputs, not outcomes. In the context of community development, it is too soon to focus on outcomes. However, we strongly recommend that other Extension services adopt and/or

implement a similar version of the ICOP framework. In Mississippi, participating communities are demonstrating outputs indicating that they are transitioning to a digital mind-set. The outcomes expected to occur in the next few years are that more states will implement similar programs and that changes in community behavior will occur, better positioning communities to adapt and prosper in the digital age.

References

Andresen, W. (2011). Using an asset-based community development initiative to attract and retain young people. *Journal of Extension*, *49*(2), Article 2IAW1. Available at: https://joe.org/joe/2011april/iw1.php

Anglin, R. V. (2011). *Promoting sustainable local and community economic development.* Boca Raton, FL: CRC Press.

Beaulieu, L., & Cordes, S. (2014). Extension community development: Building strong, vibrant communities. *Journal of Extension*, *52*(5), Article 5COM1. Available at: https://www.joe.org/joe/2014october/comm1.php

Bell, R., Jung, J., & Zacharilla, L. (2014). *Brain gain: How innovative cities create job growth in an age of disruption.* New York, NY: Intelligent Community Forum.

Christenson, J. A., & Robinson, J. W. (1989). *Community development in perspective.* Ames, IA: Iowa State University Press.

Das, B. R., Leatherman, J. C., & Bressers, B. M. (2015). Rural health care information access and the use of the Internet: Opportunity for university extension. *Journal of Extension*, *53*(2), Article 2RIB1. Available at: https://www.joe.org/joe/2015april/rb1.php

Gallardo, R. (2016). *Responsive countryside: The digital age and rural communities.* Mississippi State, MS: Mississippi State University Extension Service.

Intelligent Community Forum. (2015). *Intelligent community indicators.* Retrieved from https://www.intelligentcommunity.org/index.php?submenu=Research&src=gendocs&ref=Research_Intelligent_Community_Indicators&category=Research&link=Research_Intelligent_Community_Indicators

International Association for Community Development. (n.d.). About. Retrieved from http://www.iacdglobal.org/about/

Kretzmann, J., & McKnight, J. P. (1996). Assets-based community development. *National Civic Review*, *85*(4), 23–29.

Robinson, J. W., & Green, G. P. (2010). *Introduction to community development: Theory, practice, and service-learning.* Thousand Oaks, CA: SAGE Publications.

Warren, R. (1987). *The community in America* (3rd ed.). Lanham, MD: University Press of America.

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