

Nebraska Broadband

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Responsive Countryside: The Digital Age and Rural Communities An Interview with Roberto Gallardo

Roberto Gallardo is the author of [Responsive Countryside: The Digital Age and Rural Communities](#). Two members of the Nebraska Broadband Initiative, Anne Byers and Connie Hancock, asked Roberto a few questions about his book. The interview has been edited for brevity and clarity.

Anne: Why are you so passionate about expanding the benefits of the digital age to rural communities?

Roberto: I have been in a rural setting for the past 13 years and have seen the potential that exists in rural communities. I believe that it is a matter of education and awareness and strategic planning efforts to make sure that rural communities are not left behind in this digital age. I think that they have a lot of potential and have a lot to benefit if they participate fully in the digital age and its implications. That is why I am passionate about it. I enjoy it. I just like it when a community really embraces this digital mindset and runs with it, because I believe it will make rural communities stronger, more vibrant and sustainable in the long-term.

Anne: What is the difference between smart and intelligent communities?

Roberto: Well, it depends on who you ask. I was at a conference in Ohio this month and I met a European colleague. They define it a different way or backwards actually. To me, there is a difference between smart and intelligent communities. A smart community is one that deploys mostly sensors and open data portals and policies and stuff like that that help the community reduce costs and be more efficient when it delivers services to citizens. That to me is a smart community. It is basically one which relies on the Internet of Things to better increase service and decrease cost.

The Intelligent Community is more than that. Of course the Internet of Things is one of the components that the Intel-

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Intelligent Community may focus on, but the Intelligent Community is more proactive and more long-term in the sense that it takes a holistic view. It kind of understands what the forest is, and it can pick up on the specific trees. In this case, it would be the Internet of Things. It could be civic engagement. It could be digital equality. It could be broadband connectivity. It could be a lot of other things that are just not narrowed down to being a smart community.

“An Intelligent Community is one that understands the challenges and benefits of the digital age and takes conscious steps to prosper in it. The key words there are understands and conscious. They are more proactive in nature. They are not so much reactive, because—in reality in the digital age—if you are trying to play reactive or catch up, it is more than likely that you will not catch up.”

—Roberto Gallardo

Connie: How does this relate to demographic renewal in rural communities?

Roberto: There are preliminary studies showing that the loss of younger folks from rural communities is slowing down among those that are adopting broadband at a higher rate and have better broadband connectivity. I think that this the beginning of something. And that is another thing that can distinguish a smart community from an Intelligent Community.

What are the characteristics of an Intelligent Community?

Roberto: The concept of an Intelligent Community is taken from the Intelligent Community Forum. They identified six indicators: broadband connectivity, innovation, knowledge workforce, advocacy and marketing, sustainability, and digital equality.

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lenges and benefits of the digital age and takes conscious steps to prosper in it. The key words there are *understands* and *conscious*. They are more proactive in nature. They are not so much reactive, because—in reality in the digital age—if you are trying to play reactive or catch up, it is more than likely that you will not catch up. It is a point that I bring up in the book as well. So an Intelligent Community is one that understands this and deploys strategies to accomplish that. What does an Intelligent Community look like? It is going to vary tremendously, because every community may take a different route. But once you peel off those layers, you will find a fundamental common denominator among them which is that they engage with their citizens digitally and face-to-face. The common denominator is that they get it. They act and they think in a digital mindset. They make sure that they promote broadband adoption and activity. They take a leading role or they partner with the carriers to do that. They understand that a knowledge workforce is critical. They understand that digital platforms can help communities be a better community.

Anne: I love this quote about transitioning to the digital age:

“Don’t scratch your head wondering where in the world you will get the money to pay for it. Often, all it takes is time and passion for your community. Resources will surface if true partnerships are established, volunteers are utilized, and the community commits to the priority of transitioning to the digital age. The important question really is does the community want to make the transition.”

Anne: Can you talk more about the importance of community leadership and partnerships? I’ve seen that once communities get started, there is a lot they can do without a lot of money.

Roberto: The communities that I deal with are small. Some of them have a part-time mayor. You cannot always expect these communities to jump on board, because the first thing that they have on their mind is lack of manpower and lack of resources. But if they have the will and the motivation and they understand that it is a critical step that the community needs to take, then I have seen that the resources will surface. But if you don’t have that will—that motivation—you will not build the partnerships that are critical. You will not be able to tap into volunteers. You will not be able to sell the idea. You will not be able to motivate others. And if you don’t accomplish that, then of course that

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Six Simple Ways to Address Broadband Development

1. Organize monthly lunch and learn and/or evening sessions on new technologies.
2. Work with the local library to offer additional classes on new technologies.
3. Organize a technology week. Activities could include:
 - Demos of 3D printers, Google Glass or other technologies,
 - Lunch and learn sessions,
 - Tours to see how local businesses are using technology.
4. Work with health care providers to schedule sessions on health care apps. This could be part of a lunch and learn series or a standalone session.
5. Form local user groups for popular devices to share new apps and provide support to new users.
6. Explore ways to encourage youth to learn coding and pursue careers in IT.

Excerpt from Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development

lack of resources is going to hit you hard. But if you do manage to do that, then you will be able to find resources that many times you did not know existed in your community because you were able to motivate your co-leaders and co-residents to go ahead and take this step.

I've been in multiple meetings where the effort and all the discussion revolves around why we can't do it. In community development, we talk about CAVE citizens—Citizens Against Virtually Everything. And you will run against those. But once they see the light and understand that it is important and they truly believe it, then that mindset shifts and then you start to look at how you can get it done—not how you can't get it done.

Like I mentioned in the book, my dad had a saying that I still remember very clearly: "You better tell me how to solve the problem. Don't tell me how not to solve it, because I already know that."

That is why the key question is: "Does the community really want to make this transition?" Because if they do, then they will find a common ground to be motivated and to find resources to pull it off.

Anne: That's great advice.

Connie: Absolutely. And it goes along with the whole concept of community engagement and how do we engage with communities using digital tools so we don't always have to have a town hall meeting to know what people are thinking and the kinds of things that they want from the

community.

Anne: The Intelligent Community Institute has developed a process for working with communities. Can you briefly describe the process?

Roberto: The process is not set in stone. It is going to vary. It is not linear necessarily. I've identified four steps that come up time and time again. The first one is awareness. That has to do with that change of mindset that I was talking about earlier. You've got to make sure that the residents and the leaders understand why this is important. That awareness is key, because if you are not on the same page, you will not be able to discuss things in a meaningful way—much less plan and implement those strategies. We have to agree on the problem for us to even remotely think of agreeing on the solution. If we do not agree on the problem—then believe me then you will not agree on the solution—so that awareness component is very important.

How this is accomplished varies by community. It can be an informal conversation. It can be a formal presentation. It can be just discussions with the leaders. That is step 1.

Then comes the asset mapping. The asset mapping is just a really simple checklist. It is a conversation starter, because it makes people go, "Oh I didn't realize we had to be doing this or we had this opportunity or this option." And more importantly, it showcases and documents what assets exist in the community. I've seen it time and time again, when the community discusses the checklist and the as-

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sets, they tell me, “I didn’t realize we had all these things going on.” That is step 2.

Once you identify those assets and needs, you can employ Extension and non-Extension resources to move to implementation. Extension can play a huge role, because they can facilitate the process. I believe that the community ownership part is what really distinguishes this program from others where consultants come in, identify community assets and needs, and then leave. Here is where Extension becomes very active, because those agents are trusted.

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—Roberto Gallardo

Then down the road, if the community is interested, comes the fourth phase which is just recognition. Everybody likes to be recognized for their achievements. For that you have to document the impacts that you have had. But more importantly, you have to really build a strong case that your community is now really thinking and acting digitally. But that one is optional. Many communities may prefer not to do that. They argue that recognition will come on its own.

Again this is not a linear process. Sometimes I meet with a group of community leaders, and they prefer to do the checklist first. Once the assets and the needs and all that comes together, then they like to promote that. So they kind of swap steps 1 and 2. But the key thing here is that you are changing that mindset through the awareness part so that we can get this done. It is not impossible. It is not expensive. The asset mapping is also important. It changes the dialog when you are tell them, “Did you know your small

town has all of this going on?” That changes the mentality. Then third, you implement—with the help of Extension or non-Extension partners—whatever is needed. Then the community truly values that because you made them aware, you made them identify their assets and their needs, but you are also with them in the trench implementing.

Anne: Connie, could you share how Extension is working with Nebraska communities?

Connie: Here in Nebraska we have several communities that are aware that they don’t have the broadband or the connectivity that they would like to have. We have facilitated some conversations with stakeholders around what is that they need. We have actually utilized the checklist that Roberto mentioned in one of the communities. We used that checklist and prioritized it, so that the community knew where to focus their efforts.

We’ve also got—through the broadband planning initiative—the [technology planning workbook](#) which goes into little bit deeper conversation than the checklist that Roberto is talking about. The workbook can really help communities think about the action steps, and Extension is here to help facilitate that conversation so that the community really does specify where they want to be and what they want to address initially. We have been working with providers as well in that conversation. That has really been a helpful component from a Nebraska perspective. I think that it is critical from a technical perspective.

Resources and Links

- [Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development](#)
- [Responsive Countryside: The Digital Age and Rural Communities](#) by Roberta Gallardo is available from Amazon.com.

Contacts in Nebraska:

Connie Hancock
Nebraska Extension
chancock1@unl.edu
308-254-4455

Charlotte Narjes
University of Nebraska-Lincoln
cnarjes@unl.edu
402-472-1724

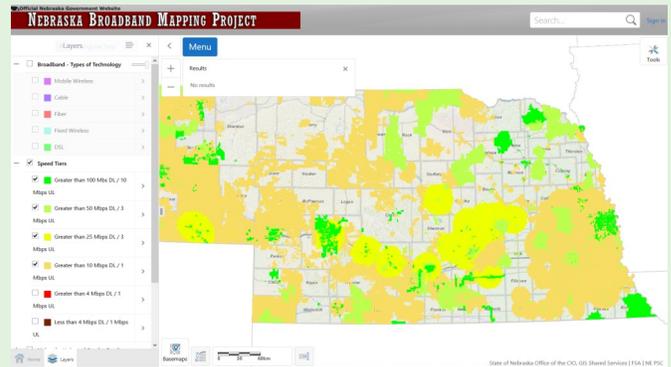
Anne Byers
Nebraska Information Technology
Commission
anne.byers@nebraska.gov
402-471-3805

Cullen Robbins
Nebraska Public Service Commission
Cullen.robbins@nebraska.gov
402-471-0230

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Steps You Can Take if You Want Better Broadband Service

- Talk to your current provider to see if you can upgrade your service.
- Go to the Nebraska Broadband Map (broadbandmap.nebraska.gov) to see if there are other providers in your area who may be better able to provide service.
- If a telecommunications company is providing broadband service in an adjacent local exchange area, an individual may file an application with the Nebraska Public Service Commission (www.psc.nebraska.gov, 402-471-3101 or toll free 1-800-526-0017) to obtain broadband service from the telecommunications company serving the adjacent exchange area. See Nebraska Revised Statutes 86-135 to 86-138 for more information on the process.
- Find allies. Identify others in your area who are also interested in obtaining better broadband service. Working as a group can be more effective than working alone.
- Work with other interested community leaders, individuals and businesses in your area to form a community broadband committee. Ideally, the committee should include representatives from local government, economic development, businesses (including agricultural producers), schools and libraries, health care providers, and local telecommunications providers. Here is a list of activities committees may wish to undertake:
 - Invite representatives of local government, health care systems, and schools to meet periodically to discuss any planned improvements in telecommunications infrastructure and ways in which costs could be shared.
 - Hold a forum to discuss the broadband needs of the community and involve interested stakeholders. Extend invitations to local telecommunications providers and officials.
 - Develop a broadband plan to address issues identified during the community forum and by the



The Nebraska Broadband Map (broadbandmap.nebraska.gov) provides useful information for communities.

broadband committee.

- Help community members stay up to date on new technology by hosting classes, lunch and learn sessions, etc. These kinds of activities help build demand for broadband service.
- Invite representatives of local government, health care systems, and schools to meet periodically to discuss any planned improvements in telecommunications infrastructure and ways in which costs could be shared.
- Identify businesses, community anchor institutions (i.e., local government, schools, health care facilities) and residences interested in better broadband service and the level of service needed through a survey or other method. Use this information to present a business case for investing in your community to telecommunications providers.

Excerpt from [Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development](#)

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Gene Hand Retires from PSC after 40 Years of Going the Last and Extra Mile

After 40 years of working to advance telecommunications in Nebraska, Gene Hand is retiring from his position as Director of the Telecommunications Department for the Nebraska Public Service Commission.

"In all of my 28 years at the Commission, I have not known a single staffer or Commissioner who has worked harder or more zealously for the Nebraska consumer than Gene," said Commissioner Frank Landis. "He truly embodies the term 'public servant!'"

Gene began working for the Commission in 1976—twenty years before the Telecommunications Act of 1996—and is retiring this year—twenty years after the Telecommunications Act of 1996. During his 40 years with the Commission, Gene has seen a lot of changes—including moving from multi-party lines to single party lines, implementing direct dialing, area code numbering issues, opening up local markets to competition, and the still-ongoing transition from a copper-based telephone network to a fiber-based digital broadband network.

"Gene went above and beyond his regular duties at the Commission, serving on many national and state boards forming telcom and broadband policies. Gene's work was firmly based on what was in the public's interest. In broadband terms, Gene not only went the last mile, he always went the extra mile."

—Tim Schram

How successful has the 1996 Telecommunications Act been? Gene feels it is a mixed bag. Competition has pushed out some technological advancements. The internet, for example, may not have flourished under a more regulated environment. However, opening local markets to competition has yet to produce the changes many expected.

"In markets as small as Omaha, Lincoln, and Grand Island,

competition can exist," explained Gene. "In smaller communities, opening up markets to competition hasn't produced the same result. I'm from Edgar. The likelihood that Edgar would be served by multiple providers isn't high."

He further explained, "Telecom policy decisions were made not thinking about telecommunications as a utility. I think it needs to be viewed more like that. If you view it as a utility and take an open architecture approach then you can have multiple providers using the same infrastructure. Most rural markets can't support multiple infrastructures."

Keeping up with technology has been challenging for regulators. "Technology has transformed the provision of telecommunication services dramatically," said Gene. "The regulatory environment is trying to transform with it. Things are changing so quickly that it is nearly impossible to keep up with it."

Gene's involvement in telecommunications went far beyond Nebraska.

"Gene went above and beyond his regular duties at the Commission, serving on many national and state boards forming telcom and broadband policies," said PSC Commissioner Tim Schram. "Gene's work was firmly based on what was in the public's interest. In broadband terms, Gene not only went the last mile, he always went the extra mile."

Gene actively participated in federal policy discussions through the National Association of Regulatory Utility Commissioners and other groups including the Federal State Joint Board on Universal Service. The involvement of Gene along with other PSC Commissioners and staff has helped policy makers better understand the needs of rural states. As an example, Gene cited the success of a panel moderated by Commissioner Tim Schram on how agricultural producers are using broadband at last summer's NARUC meeting. Many in attendance were unaware of how important broadband was to agricultural producers before attending the session.

Partnerships are one way to advance the deployment of telecommunications services. "We are a take charge state," said Gene. "We only have so many resources, so public private partnerships are important."

The Universal Service Fund is an example of a public-

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Doc Winger reviews some of the more memorable events of Gene Hand's 40 years with the Public Service Commission.

private partnership. Federal and state funds are used to support telecommunications services to high-cost areas. Two federal programs, the E-rate program and Rural Health Care program, provide support to schools, libraries, and health care facilities. Additionally, the Nebraska Universal Service Fund supports the Nebraska Statewide Telehealth Network. Lastly, the federal and state Lifeline programs provide support for low-income consumers.

As telecommunications infrastructure is transitioning from a copper-based analog infrastructure to a fiber-based digital infrastructure, the federal and Nebraska universal service programs are also transitioning to support the availability and adoption of broadband services.

Gene cautions, "It took 100 years to build telephone infrastructure. We can't build the infrastructure required for broadband overnight and it will require billions of dollars nationally."

Gene has been involved as a partner and supporter of multiple initiatives in Nebraska including Network Nebraska, the Nebraska Statewide Telehealth Network, NITC Community Council, NITC Technical Panel, FirstNet Working Group, Information Networking & Telecommunications Program Advisory Council at UNK, and the Nebraska Broadband Initiative.

Why are partnerships important to Nebraska? "With limited resources, some projects need partners to be able to move

a project forward," said Gene. "Partnerships benefit from collective thinking and collective financial ability."

When asked about what has been most rewarding about his time on the Commission, Gene replied, "What has been most rewarding is having the support to be on a lot of projects, being able to share views on what is happening on the state and federal level, as well as being able to explain the Commission's role."

In closing, he shared a favorite quote:

"He who has not the courage to be the hammer must be content to play the part of the anvil."

Gene, we are glad you had the courage to be the hammer. Enjoy your retirement!

PSC Approves Adoption Grants

On August 30 and Sept. 7, 2016, the Nebraska Public Service Commission approved three broadband adoption grants totaling up to \$366,218.

Allo and Lincoln Public Schools (LPS) will assist low-income, high-need families in their efforts to obtain affordable access to broadband services in their homes, which will further allow LPS students to increase their educational and employment opportunities. The proposed project is designed initially to target children currently attending LPS whose family income qualifies them for the Federal Free Lunch Program and who will have received or will receive digital hardware from LPS ("Qualified Subscriber") as part of LPS's current initiative to provide digital technology to all children attending LPS in the coming years.

Qualified Subscribers will be able to access the new Allo service on a month-to-month basis without a contract, on a prepaid basis. Allo is targeting the new service to cost between \$10 to \$15 per month with a 20x20 Mbps speed. The Commission approved funding up to \$150,000 for the implementation of the proposed project.

Arlington Telephone Company, Blair Telephone Company, Eastern Nebraska Telephone Company, Rock County Telephone Company, HunTel CableVision, Consolidated Telephone Company, Consolidated Telco, Inc., Consolidated Telecom, Inc., Curtis Telephone Company, Hamilton Telecommunications, Nebraska Central Telephone Company, Northeast Nebraska Tele-

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phone Company and Three River Telco received Nebraska Universal Service Fund support for a broadband adoption grant up to \$102,000.

The joint applicants in partnership with local schools, senior centers, libraries, and community centers and Consortia Consulting propose to provide in-depth digital literacy training within their service areas. The project's training partner, Consortia Consulting, will utilize a "train-the-trainer" model. Consortia will train individuals from each telecommunications provider and will provide all necessary materials and resources needed for the local provider to offer workshops in their communities.

Cox, in partnership with **Omaha Public Schools (OPS)**, received up to \$114,218 in support to bring broadband service to low-income students and families in Omaha by modifying a bus to create a Wi-Fi enabled vehicle offering free broadband connectivity and devices to neighborhoods in north Omaha. Cox plans to target students in the Wakonda and Kennedy Elementary School districts in the Omaha Public Schools system. The Wakonda and Kennedy students reside in some of the lowest-income neighborhoods in Nebraska and thus access to broadband in students' homes is more unlikely. OPS will provide learning opportunities for students on the bus and will schedule after school activities using Common Sense Media for students and their parents.

Nebraska Internet Enhancement Fund Grant Pre-Applications Due Oct. 14

A pre-application period for counties and municipalities wishing to apply for grants from the Nebraska Internet Enhancement Fund (NIEF) opens September 1.

The Nebraska Public Service Commission announced that beginning September 1, pre-applications will be accepted. Pre-applications are used by the Commission to determine whether potential projects meet the requirements for a NIEF grant award.

The NIEF, established in 2001 by the Nebraska Legislature, uses a share of the proceeds from public entities that lease dark fiber optics to fund grants for projects to install infrastructure to deliver broadband or other advanced telecommunications products throughout the state. The grants focus on areas of the state that are unserved or underserved by such services. The standard amount awarded to successful grant applicants is \$50,000.

Pre-application forms and other information on the NIEF grant program may be obtained on the Commission's website at www.psc.nebraska.gov or by contacting the Commission tollfree at 1-800-524-0017. Pre-applications will be

accepted through October 14, 2016, with the formal application period beginning November 7. Pre-applications are required before an invitation to submit a formal application is issued.

A timeline recommended by an advisory board and approved by the Commission calls for final awards for the new grant period to be made in March 2017.

New Pew Report Examines Readiness to Use Digital Tools for Learning

A new Pew Research Center report, "[Digital Readiness Gaps](#)," examines the readiness of American adults to use digital tools for personal learning. American adults were assessed according to five main factors: their confidence in using computers, their facility with getting new technology to work, their use of digital tools for learning, their ability to determine the trustworthiness of online information, and their familiarity with contemporary "education tech" terms.

Over half (52%) of adults are relatively hesitant to use digital tools for personal learning. This group is made up of three cohorts: the Unprepared, Traditional Learners, and the Reluctant.

Just under half of adults (48%) are relatively more prepared to use digital tools for personal learning. This group is made up of two cohorts: Cautious Clickers and the Digitally Ready.

Broadband Nebraska is produced by the NITC Community Council in partnership with the Nebraska Broadband Initiative. To subscribe go to: <http://nitc.ne.gov/news/community/index.html>

The **Nebraska Information Technology Commission (NITC) Community Council** (nitc.ne.gov) promotes the adoption and utilization of broadband technologies in Nebraska and provides recommendations to the NITC.

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The **Nebraska Broadband Initiative** (broadband.nebraska.gov) promotes the adoption and utilization of broadband in Nebraska. Project partners include the Nebraska Public Service Commission, University of Nebraska-Lincoln, Nebraska Information Technology Commission, Nebraska Department of Economic Development, and AIM.