Community Council

Wednesday, April 8, 2015

9:30 a.m. to 11:30 a.m. CT (8:30 a.m. to 10:30 a.m. MT)

Lincoln: Nebraska Educational Telecommunications, 1800 North 33rd Street, Board Room

Sidney: ESU 13, 1114 Toledo Street, Sidney, NE 69162

Norfolk: Northeast Community College Welcome Center, 801 East Benjamin Ave., Room 1341

Grand Island: Voc Rehab, 203 E Stolley Park Rd, Suite B, Grand Island, NE 68803

Tentative Agenda

Meeting Materials

9:30	Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting Approval of <u>Nov. 17, 2014 minutes</u> * Public Comment
9:40	 Updates Nebraska: Think IT—Jacob Knutson FirstNet—Phil Green Youth Coding—Holly Woldt, Rod Armstrong, Connie Hancock, Jessica Chamberlain, Steve Fosselman Updates from other members
9:45	 Broadband Planning and Mapping Evaluation Report New Website (<u>broadband.nebraska.gov</u>) Leveraging Broadband in Your Community: A Workbook to Help Communities <u>Stimulate Broadband Development</u> Next Steps
11:50	Meeting schedule
12:00	Adjourn

* Indicates action items

Meeting announcement posted on the NITC website on March 13, 2015 and the Nebraska Public Meeting Calendar on March 17, 2015. Agenda posted on April 6, 2015.

Community Council

Monday, November 17, 2014 9:30 a.m. to 12:00 noon CT (8:30 a.m. to 11:00 a.m. MT) Lincoln: Nebraska Educational Telecommunications, 1800 North 33rd Street Sidney Public Participation Site [NEB. REV. STAT. § 84-1411(6)]: —ESU 13, 1114 Toledo Street

MINUTES

ROLL CALL, NOTICE OF POSTING OF AGENDA, & NOTICE OF NEBRASKA OPEN MEETINGS ACT POSTING

Members Present:

Jay Anderson Rod Armstrong Randy Bretz Jessica Chamberlain (arrived at 9:45) Steve Fosselman (arrived at 9:40) Phil Green Dave Hahn Charlotte Narjes for Connie Hancock Connie Hancock (at Sidney public participation site) Steve Henderson Jacob Knutson Megan McGown (at Sidney public participation site) Holly Woldt

Members Absent: Pam Adams, Chris Anderson, Brett Baker, Norene Fitzgerald, Darla Heggem, David Lofdahl, Monica Lueking-Crowe, Marion McDermott, Joan Modrell, Jerry Vap

The meeting was called to order by co-chair Phil Green. Nine members and alternates were present in Lincoln at time of roll. A quorum was not present.

The meeting notice was posted to the Nebraska Public Meeting website on Nov. 4, 2014 and the NITC website on Nov. 7, 2014. The agenda was posted on Nov. 7, 2014. A copy of the Nebraska Open Meetings Act was available on the table.

APPROVAL OF AUG. 25, 2014 MINUTES*

There were no corrections to the minutes. Approval of the minutes was tabled until later in the meeting.

PUBLIC COMMENT

There were no public comments.

BROADBAND PLAN UPDATE

Anne Byers reported that the Nebraska Information Technology Commission approved the state broadband plan at their meeting on Oct. 28. The Governor's press office prepared a press release about the plan. The *Grand Island Independent* and *Lincoln Journal Star* published editorials on broadband. The *Grand Island Independent* editorial was more positive than the *Lincoln Journal Star* editorial. The plan is available online. No copies were printed.

Ms. Byers addressed questions regarding sharing the plan with the new administration. Brenda Decker will likely have an opportunity to brief the new administration and may share some information about the plan. State statute also stipulates that the Nebraska Information Technology Commission be chaired by

the Governor or the Governor's designee. In the past, the Lieutenant Governor has chaired the NITC. There will likely be opportunities to brief the new chair on the broadband plan.

Members asked if any legislation was needed to implement the broadband plan. Ms. Byers stated that the plan doesn't directly call for any new legislation.

Jay Anderson commented he would like to identify areas of the state that are underserved and work with them.

APPROVAL OF MINUTES

With the arrival of Jessica Chamberlain and Steve Fosselman, a quorum was present. Jay Anderson moved to approve the minutes. Randy Bretz seconded the motion. A voice vote was taken. All were in favor. **Members present in Lincoln:** J. Anderson, Armstrong, Bretz, Chamberlain, Fosselman, Green, Hahn, Narjes, Henderson, Knutson, and Woldt. **Members in Sidney (non-voting):** Hancock and McGown. **Members absent:** Adams, C. Anderson, Baker, Fitzgerald, Heggem, Lofdahl, Lueking-Crowe, McDermott, Modrell, and Vap.

INTRODUCTION AND OVERVIEW OF THE INTERFACE SCHOOL Shonna Dorsey

Shonna Dorsey is a co-founder and the Managing Director for Interface: the Web School (interfaceschool.com). Interface was founded in January 2014 as a way to address the need for skilled web developers. In Nebraska, there are .62 candidates per web developer job opening. Interface offers an intensive 10-week web developer training program. The tuition is \$7,000. Some scholarships are available to help with tuition. Short workshops are also offered on a variety of topics. Students include professionals transitioning to new careers, college students, and high school graduates seeking an alternative route to entering the tech field. First National Bank is sponsoring a group of employees. Program graduates have accepted roles from junior web developer to technical account executive with starting salaries ranging from \$30,000 to \$50,000 per year. Interface is partnering with the Boys and Girls Clubs of the Midlands on a youth developer training program. Shonna Dorsey also partners with Omaha Public Libraries to offer a free introductory workshop on web development monthly.

Connie Hancock commented that 4-H programs may be interested in partnering with Interface. Steve Fosselman from the Grand Island Public Library also expressed interest in a partnership.

MEMBERSHIP*

Phil Green moved to approve Shonna Dorsey's nomination to be a member of the Community Council. Steve Henderson seconded the motion. A voice vote was taken. All were in favor. **Members present in Lincoln:** J. Anderson, Armstrong, Bretz, Chamberlain, Fosselman, Green, Hahn, Narjes, Henderson, Knutson, and Woldt. **Members in Sidney (non-voting):** Hancock and McGown. **Members absent:** Adams, C. Anderson, Baker, Fitzgerald, Heggem, Lofdahl, Lueking-Crowe, McDermott, Modrell, and Vap.

NEBRASKA BROADBAND INITIATIVE NEXT STEPS

The Nebraska Public Service Commission's broadband mapping and planning grant ends in January. Project partners have begun discussing how to sustain some of the project's components. The Public Service Commission has found funding within its budget to continue the broadband map and Mobile Pulse data collection until the end of this fiscal year. Ms. Byers asked members for their thoughts and recommendations on sustaining and continuing some of the project activities.

Members felt that the broadband conference was valuable. The Younes Conference Center in Kearney has been reserved for October 28-29, 2015. Registration fees covered about one-third of the cost of the

conference. Utilizing local speakers, instead of nationally recognized speakers, would help keep costs down. Randy Bretz suggested showing free Tedx videos. Smaller, regional workshops are another option.

Phil Green asked what more at the municipal level can be done to support broadband efforts. There are several avenues that municipalities can pursue. Lincoln has leased duct in parts of town. Nate Wyatt from Gothenburg State Bank was a panelist at the broadband conference this fall. He talked about how community leaders worked to learn about broadband and developing a business case to present to telecommunications providers. Businesses and residences were surveyed to see if they would be interested in subscribing to broadband service. Armed with information from the survey, community leaders convinced Pinpoint to begin offering gigabit service in Gothenburg. Nebraska City issued an RFP for a provider. Some communities focus on helping businesses and residents understand how to use new broadband applications. The League of Municipalities and/or NACO may be willing to offer a session on broadband at one of their meetings if members request it.

POSSIBLE ACTION ITEMS

Anne Byers presented two ideas for possible action items which would support the broadband plan. Members of the broadband initiative have been working on a workbook for community leaders to help them better understand how broadband impacts their community and to help them develop a plan to encourage broadband development. This could be used as part of an outreach effort to communities. Based on earlier discussions during the meeting, there seemed to be an interest in this action item.

The second possible action item is to support efforts to introduce youth to coding. Anne originally envisioned a coding program in libraries similar to the summer reading program. However, this is probably not feasible. Last week, Anne Byers, Holly Woldt, Jessica Chamberlain, Steve Fosselman and Rod Armstrong had a phone call to discuss how to best involve libraries in coding and other digital literacy programs. The group decided that putting together a list of resources for libraries would be the best approach. Anne offered to help with training sessions to introduce library staff to Blockly or Scratch. AIM offered to share their playbook for putting together a Coder Dojo. Holly offered to take the lead on developing the list of resources and making it available on the Library Commission's website.

Here is a partial list of resources that may be included:

- o Khan Academy
- o Scratch
- o Sew Electric/Lily Pad Arduino
- Made with Code
- o AIM Coder Dojo
- Code.org
- 4-H Robotics and Wearable Tech Programs
- MakerCamp.org

The council was interested in working on both action items.

MEETING SCHEDULE

Members agreed to meet again in late January or early February.

ADJOURNMENT

Rod Armstrong made a motion to adjourn. Dave Hahn seconded. The meeting adjourned at 11:00 a.m.

The Nebraska Broadband Initiative An Evaluation Report with Observations and Recommendations

Prepared by Milan Wall, Co-Director, and Kurt Mantonya, Senior Associate Heartland Center for Leadership Development

January 30, 2015



3110 N 40th St., Suite A Lincoln, NE 68504 (402) 474-7667 www.heartlandcenter.info

Nebraska Broadband Initiative Evaluation Report Executive Summary January 30, 2015

Introduction

In the fall of 2014, University of Nebraska-Lincoln Extension contracted with the Heartland Center for Leadership Development to conduct an evaluation of the Nebraska Broadband Initiative. This evaluation was primarily focused on documenting impacts as well as suggestions for the future. The following activities were undertaken:

- Planning conference calls and meetings between the Heartland Center and University of Nebraska-Lincoln (UNL) Extension staff to coordinate, plan and evaluate progress.
- Development of interview and focus group protocols utilized during the project.
- Attendance at the 2014 Broadband Connecting Nebraska Conference in Kearney.
- Interviews with stakeholders at the Broadband Conference.
- Telephone and in-person interviews with stakeholders during the months of October through January.
- Extant literature review and secondary data analysis.
- Post interview/focus group analysis.
- Outreach to Nebraska communities that are utilizing broadband.

Background on the Broadband Initiative

The Broadband Mapping and Planning Initiative was funded over a five-year period through a grant to the Nebraska Public Service Commission by the U.S. Department of Commerce's National Telecommunications and Information Administration.

The principal purposes of the grant were to increase adoption and utilization of broadband, with an emphasis on unserved or underserved locations and populations. The underlying objective was to increase understanding of the importance of broadband for economic growth. The mapping portion of this project illustrates where broadband currently exists and how coverage has changed over time.

Project partners included the University of Nebraska, the Nebraska Department of Economic Development, the Nebraska Information Technology Commission, the Nebraska Public Service Commission and the AIM Institute.

Quantitative Impacts

The Broadband Initiative demonstrated measurable impacts of increasing broadband availability in Nebraska in a number of ways. In economic terms, the project traced these impacts:

• More than 60% of businesses said they sell goods or services online.

- Businesses reported cost savings of 4% due to Internet use.
- A 2013 survey indicated that 364 businesses had enjoyed a net increase of 654 jobs due to Internet use.
- Respondents reported that they had experienced revenue increases of 25% to 40% due to Internet use.
- In terms of availability, by 2013, 99.5% of Nebraskans lived where broadband was accessible with download speeds faster than 10Mbps.

Qualitative Data Overview

Numerous qualitative data collection efforts were undertaken for this evaluation project. This included but was not limited to interviews with key stakeholders such as consumers, rural telecommunications providers, broadband infrastructure installers, entrepreneur coaches, conference conveners and attendees, economic developers, members of the Public Service Commission and members of the Nebraska Information Technology Commission. What follows are key findings from these qualitative data efforts.

- The Nebraska Broadband Mapping Project is one of the most significant impacts of the Nebraska Broadband Initiative.
- Relationship building is critical.
- Education has been a key element.
- Collaboration has been critical to expand availability and access.

The annual conference, particularly, was cited as a critical factor impacting education, partnerships and youth engagement.

Recommendations

After the evaluation team conducted its interviews, focus groups, literature review and consultations with project team members, a number of recommendations designed to carry this project forward in a sustainable manner seemed apparent. These recommendations include:

- Continue the annual conference
- Sustain collaboration among stakeholders, including providers
- Maintain the mapping element
- Find ways to continue youth engagement
- Maintain a public education strategy

Nebraska Broadband Initiative Evaluation Report

"With broadband throughout much of rural Nebraska, there has never been a better time to start a business."—Interview Informant

Introduction

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What is Broadband?

Broadband refers to a high-speed data service that supports multiple applications including access to the Internet. In that respect, broadband refers to Internet plus more. Broadband access to the Internet can be provided in a variety of ways, including cable, fiber, wireless, satellite and

what is commonly called DSL, or Digital Subscriber Line. Currently, no universally agreedupon definition of "broadband" exists.

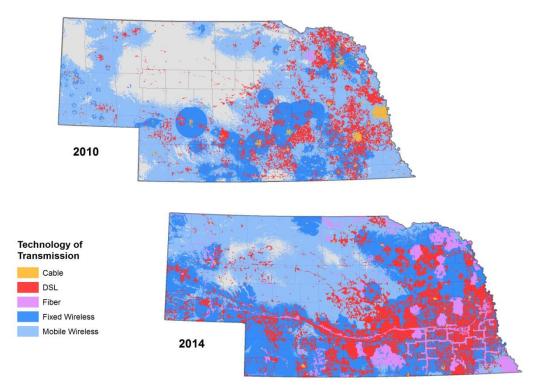
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- A 2013 survey indicated that 364 businesses had enjoyed a net increase of 654 jobs due to Internet use.
- Respondents reported that they had experienced revenue increases of 25% to 40% due to Internet use.

In terms of availability, by 2013, 99.5% of Nebraskans lived where broadband was accessible with download speeds faster than 10Mbps. The maps below dramatize the change in availability between 2010 and 2014.

Broadband Coverage in Nebraska



Surveys showed that 82% of Nebraska households had some type of broadband service, and nearly 100% of businesses do. More than 80% of businesses reported they had mobile

connections. Rural-urban differences do exist, however, in both broadband service and mobile accessibility.

Key Highlights

The Broadband Initiative reported key highlights in several important areas, including the following:

- The goal of the broadband mapping project was to map broadband deployment in Nebraska between 2010 and 2014 through biannual data collections from providers. At least 89 companies participated in the data collection, and the results were displayed on the Nebraska Broadband Map (<u>http://broadbandmap.nebraska.gov</u>) and submitted to the NTIA for use in the National Broadband Map (<u>http://www.broadbandmap.gov</u>).
- In the fall of 2013, the PSC contracted with Mobile Pulse to use its mobile device application to collect tests of cellular network connectivity and speed. These tests allow the PSC to analyze the availability, upload and download speeds of the mobile wireless providers in Nebraska. Over the course of the grant period, the Mobile Pulse app. has been used to collect over 138,000 tests of connectivity, and over 19,000 speed tests.
- More than 1,000 businesses responded to assessments on how they use broadband.
- A household survey mailed in 2010 to 6,600 Nebraskans produced a 47% response rate.
- A follow-up survey in 2014 indicated that 82% of households had broadband service compared with 76% in 2010.
- Over the same four-year period, respondents age 65 and older reported an increase from 48% to 64% in broadband service at home, while low income households reported an increase from 44% to 53%.
- 14 educational webinars were delivered, producing 2,000 views.
- 44 best practice videos show the benefits of broadband for business, producing more than 5,000 views.
- Four statewide broadband conferences, with more than 200 participants at each conference, were held in Lincoln in 2011-2012 and in Kearney in 2013-2014. In 2011, conference participants included 125 adults. In 2012, 195 total participants included 50 youth. In 2013, there were 205 total attendees including 80 students. Finally in 2014, 165 adults and 180 students attended for a total of 345.
- Over 270 businesses/organizations attended the eight technology fairs and the regional workshop held in Omaha, Nebraska.
- A focused effort was made to engage the Hispanic community, particularly in Omaha, where a conference was held in 2014 to highlight Hispanic business usage attracted over 150 business owners/employees.
- Since April 2012, nearly 800 people connected monthly with the project website, averaging 3 minutes per visit.
- 300 people participated in 8 regional forums throughout the state.

- 80 people joined planning committees.
- 17 focus groups with 105 participants were conducted in 2012 and 2013
- Statewide plan and 8 regional plans were created with input from over 8,000 Nebraskans (including 600 youth). Input gathered through planning teams, surveys, focus groups and forums.
- Coaches provided technical assistance to businesses in a variety of ways, including 450 scorecards comparing the businesses with others in similar industries, and 40 of 54 businesses that received active coaching were moving toward action.

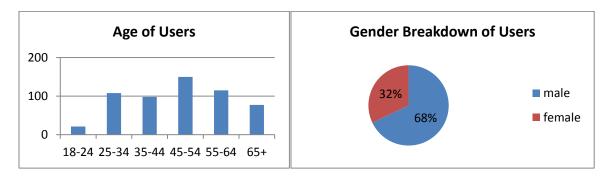
Consistent priority areas that were emphasized in the regional plans included:

- Digital literacy and adoption
- Advanced technology training
- Broadband availability and affordability
- Economic development
- Agriculture

Further, special efforts were targeted at community libraries with the assistance of the Nebraska Library Commission. Nearly 250 staff from libraries statewide participated in train-the-trainer sessions.

Quantitative Data Overview

Google Analytics was utilized to discover emerging themes about the Nebraska Broadband website located at <u>broadband.nebraska.gov/home</u>. Embedded within the website are different tabs that route a user to such pages as business resources, broadband literacy, video successes and the mapping initiative. The timeframe for the data below was January 1, 2012 through January 26, 2015.



Mobile Devices Utilized to Access Website

Both the Apple iPad and iPhone are the leading mobile devices utilized to access the website, by a large margin. The number and percentage of visits are displayed in the table below as well as the percentage of new visits.

Device	Number of Visits
Apple iPad	1,770 (41.38%)
Apple iPhone	901 (21.07%)
Not set	191 (4.47%)
Motorola MOTXT912B	43 (1.01%)
Samsung Galaxy SIII	40 (0.94%)
Samsung Galaxy SIII (GT9300)	35 (0.82%)
Galaxy SIV	29 (0.68%)
Samsung Galaxy SIII (SCH1535)	29 (0.68%)
Samsung Galaxy SIII (SCH545)	27 (0.63%)
Motorola Droid Bionic	26 (0.61%)

Browsers Used to Access the Website

The following table indicates the top browsers utilized when accessing the website. Internet Explorer is the clear choice, followed by Chrome, Firefox and Safari.

Browser	Number of Visits	
Internet Explorer	9,102 (34.66%)	
Chrome	6,273 (23.89%)	
Firefox	5,674 (21.61%)	
Safari	3,764 (14.33%)	
Android Browser	847 (3.23%)	
Safari (in-app)	188 (0.72%)	
Mozilla Compatible Agent	107 (0.41%)	
Amazon Silk	81 (0.31%)	
IE with Chrome Frame	68 (0.26%)	
Opera Mini	38 (0.14%)	

Other Statistics for January 1, 2012 and January 26, 2015 Timeframe

- Total number of visits 26,262.
- Total number of new users 17,890.
- Total number of return users 8,369.
- Total number of page views 86,231.
- Average number of pages visited 3.28.
- Average duration per visit 3.07.
- Total number of visitors between September 1, 2013 and October 31, 2013 (pre/post conference) 3,128.
- Total number of visitors between October 1, 2014 and October 31, 2014 (pre/post conference) 1,031.
- In comparison, the total number of visitors between May 1, 2013 and May 31, 2013 was 399.

When drilling down to each page, the following chart details specific page views, unique page views and average time on page. It is important to note that the visitors spend more of their time on the mapping page, nearly 30 seconds more than the second page (/videos).

Page	Page Views	Unique Page View	Average Time
			on Page
/	15,479 (17.95%)	11,999	1:27
/home	6,074 (7.04%)	2,604	1:11
/mapping	5,688 (6.60%)	3,385	2:54
/events	3,671 (4.26%)	2,539	1:34
/web/nebroadband/conference	2,450 (2.84%)	1,671	2:02
/videos	1,593 (1.85%)	820	2:26
/surveys	1,585 (1.84%)	789	1:24

/news	1,456 (1.69%)	730	0:50
/web/nebroadband	1,244 (1.44%)	564	0:41
/get-involved	1,235 (1.43%)	547	0:37

Keywords

Several different keywords were utilized in order to find the broadband website. These include:

- Broadband.nebraska.gov
- <u>http://liferay</u> demo .unl.edu/c/portal/login
- Nebraska broadband
- <u>http://broadband.nebraska.gov</u>
- Broadband Nebraska
- Nebraska broadband conference
- Nebraska broadband initiative
- <u>http://broadband.nebraska.gov</u>
- Broadband Connecting Nebraska Conference

Qualitative Data Overview

Numerous qualitative data collection efforts were undertaken for this evaluation project. This included but was not limited to interviews with key stakeholders such as consumers, rural telecommunications providers, broadband infrastructure installers, entrepreneur coaches, conference conveners and attendees, economic developers, members of the Public Service Commission and members of the Nebraska Information Technology Commission. What follows are key findings from these qualitative data efforts.

The Nebraska Broadband Mapping Project is one of the most significant impacts of the Nebraska Broadband Initiative.

The broadband map was mentioned by several informants as one of the most significant impacts of the initiative and there is desire to see this continue. The map allows users to identify areas of high or low broadband connectivity. This is critical to communities on a number of levels such as recruiting new people to rural areas, connecting economic developers with potential businesses and helping local businesses reach the global marketplace.

Relationship building is critical.

Other key impacts include the partnerships that have been formed and strengthened between partners such as University of Nebraska-Lincoln Extension, public libraries, providers and policymakers. Important public-private partnerships have formed that appear to have lasting value. In addition, broadband has been brought to the forefront, and people are talking about it at the local and regional levels. Through conversation and continued dialogue, the partnerships formed will strengthen even more.

Education has been a key element.

Those interviewed sense that getting information out, statewide, is one of the important facets moving forward. This suggests a constant reassessment of the largest barriers and challenges at the community and regional levels and a search for ways to overcome those barriers in collaborative roles. Methodologies to keep people talking have included conferences, outreach to communities and telecommunications companies, maintaining the partnerships and fostering dialogue between them.

The annual conference, particularly, was cited as a critical factor impacting education, partnerships and youth engagement, as underscored by the testimonials below, which were paraphrased from interviews conducted at the conference.

Utility Representative—Lots of study, lots of talking, lots of thinking, but not many results. Needs to be more solutions at the grassroots level: (a) to get access to rural and (b) to maximize the opportunity. University of Nebraska resources are the bridge to the local level, with NBDCs, SBA, and Community Colleges. UNL Extension could be the broker or clearinghouse for more solutions at the local level.

Broadband Expert—Overall grade: 3.5 on a 5-point scale on accessibility and availability. It's more an education issue than anything—more than just getting your business on the web. Service is better where there is a rural co-op or independent phone company, e.g., Benkelman or Cambridge.

County Economic Development Director—We had stakeholder meetings that were valuable. Just finished business interviews and no one said they had bad access. Both Pinpoint and Great Plains can deliver band width needed. More difficult with Century Link. Website is underwhelming—some information inaccurate.

Stakeholder Representative—There is a lot more (going on) other than just better visibility on the web. Businesses creating jobs through technology, fleet management, and financial services industry, now dependent on data transfer within as well as point to point. Still a lot of room for improvement in understanding what's possible, such as remote monitoring of health care, animal production. Some communities get it, some don't.

Community Economic Development Director—This conference has helped me get out of my comfort zone; it's gotten me much more aware of technology issues and broadband.

Rural Telecommunications Company Representative—At the conference, we learn what people want so adoption can go up. The research has created a better data base that identifies coverage. But the providers are learning that we are not doing enough training. Small Telco's are investing like crazy, with their own money. We can do upgrades to increase speed. This conference raises awareness among communities and providers, who, in Nebraska, are working together collaboratively. Nebraska is so far ahead of so many other states. To get support to continue the conference, all they have to do is ask.

Continuing Educational Efforts

It should be stressed that in "keeping the conversation going," especially with some stakeholders, the communication style needs to be in easy to understand lay terms. The evaluation team found that there is a lack of familiarity with terminology such as "cloud" and "VoIP." Interviewees stressed that when addressing policymakers, using plain English is paramount.

The Importance of Vibrant and Ongoing Collaboration

Fostering continued collaboration among the partners in this project was a critical emerging theme that cropped up with many of the interviews and focus groups. Each partner whether public or private has their specific role and they are performing well in that role.

Recommendations

After the evaluation team conducted its interviews, focus groups, literature reviews and consultations with project team members, a number of recommendations designed to carry this project forward in a sustainable manner started to appear. These recommendations include:

- Continue the annual conference
- Sustain collaboration among stakeholders, including providers
- Maintain the mapping element
- Find ways to continue youth engagement
- Maintain a public education strategy

Continue the Annual Conference

The importance of the annual conference was echoed in every interview and focus group conducted. Continuing this conference on an annual basis provides opportunities for networking among providers and consumers to be maintained. It becomes an educational venue where organizations such as UNL Extension can highlight current technology usage in communities. Panels led by youth constituents would let stakeholders hear the younger generation's voice on the trends in technology.

Sustain Collaboration Among Stakeholders, Including Providers

This recommendation is a follow-up to the annual conference recommendation. While the conference is a huge networking and learning opportunity that promotes collaboration, it is critical to continue the lines of communication ongoing to foster collaboration during the rest of the year.

Maintain the Mapping Element

The Nebraska Broadband map should be maintained into the future.

Find Ways to Continue Youth Engagement

Youth are the technology trendsetters and we should be paying attention to their needs and interests. We can also leverage their talents in different ways. During the annual conference, consider having student-led panels and presentations. Utilize their expertise in conjunction with educational venues such as rural libraries to teach technology/broadband courses that increase the techno-literacy among older adults.

Maintain a Public Education Strategy

Public education is a priority, such as through public and rural libraries. Libraries are finding themselves in a long-term role of a) connecting people that may not have Internet access in their home and b) becoming a place to educate people about Internet usage, social media and terminology. Consider collaboration with the Nebraska Library Commission on a train-the-trainer approach utilizing Extension educators and perhaps even local high school students to conduct the classes. The website should be updated and could be more user-friendly.

Case Study Vignettes

Broadband Helps Valley County Recruit Newcomers, Increases the Entrepreneurial Spirit

Valley County, Nebraska has been a typical rural Nebraska County, losing almost 10% of its population every census since 1920. That has since changed recently with an 8% loss county-wide and a 5% loss in the community of Ord, the County seat with 2,112 people (2010 Census). Although these numbers represent continuing challenges, for the first time in 100 years this county is beating back population decline and anticipates a net positive growth eventually. Valley County has experienced a significant increase in the so-called Millennial generation, those persons 25 to 34 years of age. In 2000, there were 182 Millennials, but by 2010, this same cohort had increased 18% to 215 persons. Ord is also seeing an increase in school enrollment. For example, the Pre-K class in 2010-2011 had 43 kids. Four years later in 2014-2015, that same class (now in 3rd grade) has 60 kids. Finally, there is also an increase in children under the age of 5 in 2012 with 53 more children in that cohort than in 2000.

With broadband throughout much of rural Nebraska, there has never been a better time to start a business. For example, a recent business start-up in the village of Arcadia brought a person home along with her spouse to relocate a coffee roasting business. Normal Roasting Company was founded in Normal, Illinois in 2011 and relocated to Ord in 2012. They take a small batch customized roasting approach for each customer, roasting every batch to order and shipping the following day, an approach that keeps customers coming back for more.

In retail, Misko's, the long-time sporting goods store located on the square in Ord, has had to reinvent itself in order to compete in the global economy. Misko's now does screen printing for

school teams throughout the state and is an exclusive dealer for some football equipment. Teams and schools utilize an online presence to place orders for uniforms and sports gear. Misko's is also riding the coats of the ever popular Under Armour brand, selling this merchandise in their store.

Ord has high speed Internet in its community but right now fiber optic is limited to the school and hospital. Residential service is great but some businesses, especially those with a lot of phone lines, struggle because of limited bandwidth. The community is currently served by 10 Mbps but a couple of providers will be upping that to 60 Mbps for some of the local businesses

Broadband in Neligh Helps Market Community and Engage Alumni

Located on the scenic Elkhorn river and home of the historic Neligh Mill, this community of 1,599 (2010 Census) is utilizing broadband as a means to market their community and recruit new residents to this thriving northeast Nebraska town.

Leveraging resources from the newly created Rural Futures Institute of the University of Nebraska, Neligh benefited from two interns during the summer of 2014 to create a marketing campaign. The interns along with the city's economic development director started a marketing project entitled "This is My Neligh." Utilizing GoPro cameras, the interns recorded video through the eyes of local residents on their perception of this community. The goal of these videos is to highlight area amenities, community and recreation opportunities as well as attract potential newcomers to the area. Video was recorded at the swimming pool, parks, sports fields and even attached to a car hood—taking video while driving around town.

Once recording was complete, the interns began uploading nearly 40 videos to a YouTube channel, the city's Facebook page and other social media sites. A release party was held in mid-July 2014 to unveil the first batch of promotional videos at an open house with Neligh residents.

In January, 2015, the "This is My Neligh" marketing campaign had 7,800 views, 13,200 minutes watched from people in 48 states and 39 countries. The city's Facebook page during that same month garnered 750 "likes" and reached 27 countries, multiple states and several cities in Nebraska. The city's Twitter feed has attracted 1,900 views. The demographics indicate that 66% were women and 33% were men.

With the goal of reaching out to Millennials and recruiting them to come back to the area, an unintended outcome has been realized. "Pre-senior alumni," those in their mid to late 50's who plan to retire in the next 10 years, have indicated their desire to return to Neligh for retirement. These people bring with them disposable income and volunteer opportunities for organizations, schools and churches.

Even though Neligh has broadband service including fiber, some people and businesses are skeptical. To alleviate this skepticism, the economic development director in conjunction with several partners is hosting a speakers' bureau that will help to bridge the gap in the community about fiber.

Connecting Nebraska Interview Protocol Nebraska Broadband Conference October 1 and 2, 2014 (Draft 9/29/14)

- 1. How familiar are you with the Connecting Nebraska project?
- 2. What are some of the major influencers of the improvement in broadband coverage over the last five years?
- 3. What needs to happen to continue to improve coverage?
- 4. What needs to happen to continue to improve adoption and utilization?
- 5. What new technologies are coming on line that will improve adoption and utilization?
- 6. What has influenced improvements so far?
- 7. What are the impacts of the existence of the Nebraska Universal Service Fund?
- 8. How would you assess the consistency of quality in coverage now?
- 9. What helps or impedes coverage and/or adoption currently?

For Coaches:

- 10. How could we strengthen educational programming related to broadband adoption?
- 11. How might we improve networking related to adoption and utilization?
- 12. What would help businesses in your community?

Focus Group Protocol Nebraska Broadband Initiative December 2014-January 2015

- 1. What have been the most significant impacts of the Connecting Nebraska broadband initiative?
- 2. What is most important to continue?

- 3. What should be communicated about broadband in Nebraska to policymakers and other stakeholders?
- 4. What future roles are most important for the partners in this project?

5. How might key activities of the project be sustained?

6. What other comments would you like to share?

Focus Group Protocol for Project Resource Team Nebraska Broadband Initiative January 23, 2015

- 1. What have been the most significant impacts of the Connecting Nebraska broadband initiative?
- 2. What is most important to continue? Recommendations under consideration by the evaluators include:
 - a. Continue the annual conference
 - b. Sustain collaboration among stakeholders, including providers
 - c. Maintain the mapping element
 - d. Find ways to continue youth engagement
 - e. Maintain a public education strategy
- 3. What you add to or change among the recommendations listed above?
- 4. How might key activities of the project be sustained?
- 5. What future roles are most important for the partners in this project?
- 6. What should be communicated about this project to policymakers and other stakeholders? At the local, regional level? At the state level? At the federal level?
- 7. What other comments do you have?

Broadband Evaluation Contacts

Interviews Conducted at 2014 Conference

Keith Ellis, NPPD Randy Bretz, TEDx Rex Nelson, McCook Economic Development Rod Armstrong, AIM Wes Blecke, Wayne Economic Development Ryan Mead, Vitru, Inc. Brian Thompson, Consolidated Companies Carla Becker, Hartington Economic Development Pam Adams, American Broadband

Panelists/Speakers Presentations attended at 2014 Conference

Holly Woldt, Nebraska Library Commission Nate Wyatt, Gothenburg State Bank Liz Connor, Latino Liaison Troy Stickels, Glenwood Telephone Mike Mawby, Charter Communications Tom Shoemaker, Pinpoint Communications Jason Axthelm, NebraskaLink Stuart Howerter, United Private Networks Deb Bass, Nebraska Health Information Initiative Jessica Schlegelmilch, Kearney Public Schools Sherri Harms, University of Nebraska at Kearney Shonna Dorsey, Interface Web School Gene Hand and Cullen Robbins, NPSC Anne Byers, NTIC Travis Hollman, Hollman Media Keith Adams, USDA RD Daniel Sieberg, Google Dustin Clonch and Jake McElory, Aglix Robin Ambroz, NIFA Vishal Singh, UNL Randy Bretz, TEDx

Interviews/Focus Groups Conducted Separate from Conference

Gene Hand, Nebraska Public Service Commission Anne Byers, Nebraska Information Technology Commission, with Jayne Scofield and Brenda Decker Jay Anderson, NebraskaLink All Public Service Commissioners Broadband Planning Team (Rod Armstrong, Connie Hancock, Becky Vogt, Maria Conner, Leo

Martinez, Diann Ballard, Charlotte Narjes).