

Updated October 8, 2020

National Action Dialogue: Extension Futures

A dialogue to inform possible Extension infrastructure/equipment proposals

Summary Report

Challenge: Identifying specific national and regional needs for infrastructure and training needed for Cooperative Extension professionals to meet the needs of their local communities, especially in the COVID-19 crisis.

Response: In partnership with ECOP, two National Action Dialogues (NAD) focused on Extension Futures were held on July 13 and July 14, 2020. 382 participants from 69 Land Grant Universities (LGU) representing all five ECOP regions and program areas along with 18 partner organizations who collectively shared ideas, concerns, and needs within 5 focus topics, guided by 10 Facilitators, and informed by 17 Key Informants.

(10/8/20) Additional input was gathered from Cooperative Extension administrative leadership as part of the September 2020 National Extension Directors and Administrators (NEDA) meeting. Breakout sessions included topics that emerged from the July NAD event. These included access to farm and ag data for ag innovation and data-driven decision-making; aggregation and use of public data for community decision-making; advocating for broadband technology in rural and urban communities that have low or poor accessibility with a digital equity emphasis; and building community technology networks and hubs, including low-tech and offline solutions.

Possible Actions: Breakout session notes, chats and transcripts were coded and analyzed, resulting in the findings section of this report and the following possible actions, which is presented as a portfolio of possible implementation choices. A diversity/equity/inclusion (DEI) lens was applied to ensure that the choices implemented include community members who have low-income, low-access, and who are experiencing inequities/disparities and/or negative impacts from COVID-19. As an organizing framework for the portfolio of implementation choices, the 5 breakout session topics were

organized in Table 1 to illustrate simultaneously working on **strategic capacity building** and **strategic change leadership** internally and in community.

Table 1 - Five Breakout Session Topics

STRATEGIC CHANGE LEADERSHIP	National Community Learning Network (NCLN)	Professional, Continuing Education, and Workforce Development (PCEWD)
STRATEGIC CAPACITY BUILDING	Digital Cooperatives (DC)	
	Infrastructure (I)	
	Living Ecosystems of Professionals (LEP)	

A portfolio of possible implementation choices (Table 2) was developed from the findings. By design, it builds on and leverages the strengths of Extension’s people, processes, and platforms:

- People: Partners, Program Innovators, Data Science Innovators, Partnership builders, Network builders
- Process: Information, Education Programs, DEI framework
- Platforms: Technology, University and Extension Enterprise applications, Major industry applications

Table 2 - Possible Actions Drawn from the Findings

	Portfolio of Possible Implementation Choices	Futures Alignment
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A	People	<p>Use an Extension value case to build partnerships with University Executive Leadership to leverage university infrastructure, to deepen integration of Extension to strengthen engaged scholarship, and to help prioritize funding (to protect current infrastructure and emerging Extension Futures)</p> <p><i>Strategic Change Leadership:</i> ECOP is the appropriate level of leadership to use the value case to create awareness of the need for change, to share the benefits of change, and create the desire to change</p>	Impacts All
B	People	<p>Transform Extension’s staffing model to align with the evolved and emerging roles of Extension</p> <ul style="list-style-type: none"> · Develop NEW core competency model · Develop NEW job design · NEW staffing model · Hire for NEW staffing model and NEW job design <p><i>Strategic Change Leadership:</i> Developing knowledge on how to change; Developing ability to implement required skills and abilities.</p>	LEP, NCLN, PCEWD

C	People	<p>Facilitate strategic interventions to initiate Extension staffing and culture transformation</p> <p><i>Possible Action:</i> redesign a set number of existing positions to develop Extension cohort to lead transition; creatively recruit internally, nationwide for the positions</p> <ul style="list-style-type: none"> · <i>NEW Extension specialist</i> – program innovators <ul style="list-style-type: none"> ○ equip their now and their next; link to Information Clearinghouse · <i>Engagement specialist</i> – data-driven decision-making, partnership development, network builders; Strategic university partnerships with Office of Government Relations, and Office of Outreach and Engagement, and other place-based offices/programs/initiatives · <i>Instructional Design specialist</i> · <i>Support specialists</i> – data science, technology <p><i>Intervention II:</i> establish a special reward/recognition program for transition cohort</p> <p><i>Strategic Capacity Building</i></p>	LEP, NCLN, PCEWD
C	People	<p>Train Extension professionals to develop NEW core competencies and transform to NEW persona (i.e. technology, data science, instructional design, instructional technologies, using a DEI lens, change leadership, etc.)</p> <p><i>Strategic Capacity Building:</i> Couple with transforming staffing model and redesign positions (jobs)</p>	LEP, NCLN, PCEWD
D	People	<p>Develop human networks to expand and strength Extensions reach and capacity nationwide; Integrate a boundary spanners role to deepen network connections and leverage the power of the networks (i.e. relationships, resources, etc.) to support delivery of Extension programs and services</p> <p><i>Strategic Capacity Building:</i> Couple with implementation of Information Clearinghouse</p>	Impacts all

E	People	<p>Increase partnership models and implement nationwide to increase capacity, reach, and impact in delivery of Extension programs and services</p> <p><i>Strategic Capacity Building:</i> Couple with implementation of enhanced and new programs, data science resources, Information Clearinghouse</p>	Impacts all
F	Process	<p>Strengthen reputation as trusted information source by building Extension’s data science capacity, providing the community NEW data science resources, simultaneously building community trust in data</p> <p><i>Strategic Capacity Building</i></p> <p><i>Strategic Change Leadership:</i> Extension professions act as change agents by cultivating awareness for the need for data-driven decision-making and building desire and trust through provision of reliable data resources specific to community issues/needs</p> <p>(10/08/20) Current examples of data that provide value to agricultural producers and/or industry/government partners include natural disaster preparedness, economic opportunities, market identification, pest management, consumer behavior, and logistics. Key partners that collaborate with local CES professionals include local, state, and regional governmental agencies, non-governmental organizations (NGOs), volunteers, and associations/boards. Barriers to using data include limited data collection/interpretation skills in CES professionals as well as varying amounts of trust in data shared. (Specific examples available in the NEDA breakout room notes in the appendix.)</p>	NCLN

G	Process	<p>Extension professionals support community decision-making with data science, technology and a DEI lens, focused on issues/needs identified by the community; build community capacity through partnerships and training</p> <ul style="list-style-type: none"> · COVID 19 responses – safety (social distancing protocols), housing, water affordability and access; food security, safety and waste, etc. · Unemployment · Technology Access <p><i>Strategic Change Leadership</i></p> <p><i>Strategic Capacity Building:</i> Couple with implementation of partnership model development and establishing engagement specialist position</p> <p><i>DEI Framework:</i> The framework will be applied to address equity gaps, the digital divide, and negative impacts of COVID 19</p> <p>(10/8/20) Opportunities and examples that have emerged since COVID-19 include new partnerships, expanded audiences, greater need for CES to be seen as the “go-to” for research-based information for decision-makers at the local, state, and beyond. As echoed by other parts of this report, there is a strong need for improved and expanded broadband Internet access both in equipment and infrastructure, staff training, and visibility. (Specific examples available in the NEDA breakout room notes in the appendix.)</p>	NCLN
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H	Process	<p>Identify programs for enhancement and develop NEW programs (strategic prioritization, community informed). Implement nationwide to standardize programs (including needs assessment, metrics/measures, evaluation, instructional methods and technologies, delivery methods)</p> <ul style="list-style-type: none"> · Workforce Development (includes digital/technology literacy) · Small Business Development/ Entrepreneurship · Rural Work Life · 4H/Youth Development <p><i>Strategic Capacity Building</i></p> <p><i>DEI Framework: The Professional, Continuing Education and Workforce development Extension Future focuses on the economic well-being of community members. The DEI framework will be applied to focus on addressing economic disparities and inequities.</i></p>	PCEWD
I	Platform	<p>Establish remote “work-from-home” configurations (role-informed); provide guidance on working remotely and work/life balance</p> <ul style="list-style-type: none"> · Services: Internet, hotspots, data plans · Equipment: Wi-Fi boosters, Cell phones, Computers, Printers; AV equipment; Accessibility (for Accommodations) · Industry applications for content production (audio, video, data visualizations, etc.) · Industry applications for remote engagement: Blackboard, Google, FB, Blackboard, etc. <p><i>Strategic Capacity Building</i></p>	I, LEP

J	Platform	<p>Advocate for and resource broadband technology in rural and urban communities that have low or poor accessibility</p> <p><i>Strategic Change Leadership</i></p> <p><i>DEI Framework:</i> The framework will be applied to close the digital divide by providing resources in ways that eliminate disparities and inequities</p> <p>(10/8/20) If additional funding was available there would be an opportunity for CES to seek partners like rural health, telemedicine, electrical cooperatives, and/or established cellular networks to make the greatest impact. (Specific examples available in the NEDA breakout room notes in the appendix.)</p>	DC
K	Platform	<p>Build community technology networks and hubs (include options for low-tech, off-line, accessibility functionality); include equipment sharing/lending program; includes training to build digital literacy</p> <p><i>Strategic Capacity Building:</i> Couple with implementation of enhanced/new programs and data science resources</p> <p><i>DEI Framework:</i> The framework will be applied to address disparities and inequities in the technology resources available to community members with low-income and low accessibility.</p> <p>(10/8/20) Technology networks and hubs have emerged recently including partnerships and networks locally and statewide in Florida, California, Illinois, and in the Southern Region of the US. Hubs have been created through shared hotspots and the building of fiber networks. Low and no-technology solutions are also emerging including the use of radio, television, mailers, texting, and mobile traveling units that could provide access, food, programming. Examples of specific partnerships and new programs were shared that included state broadband initiatives, Utah's remote worker program and Find Food Illinois. (Specific examples available in the NEDA breakout room notes in the appendix.)</p>	DC

L	Platform	<p>Build an Information Clearinghouse to provide national access to models, tools, and resources. Facilitate sharing, connectedness, consistency. Increase agility, responsiveness, and rate of change.</p> <ul style="list-style-type: none"> · A repository of best, promising, and failed practices · A directory of Extension experts and expertise <p><i>Strategic Capacity Building</i></p>	I, LEP
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The Findings: The following, is a summary of the event process and findings.

Context: Cooperative Extension (CE) has used the flexibility of capacity funding to pivot rapidly and significantly to virtual instruction due to the COVID-19 pandemic. This transformation has placed a strain on employees and budgets and has revealed both needs and opportunities for the future of CE work.

Purpose/Outcome: The purpose of the Action Dialogue is to imagine near-future possibilities for how CE can better serve individuals and communities in the face of evolving needs and capabilities. This work will be done through a diversity, equity and inclusion framework that will include awareness of low-income and low access individuals. The outcome of this dialogue will support the transitional aspect of CE to a more-virtual delivery platform and will inform the need for funding of infrastructure/equipment needed for the envisioned future. Video: <https://use.vg/gJw1bc> [1:36]

Key Considerations: (1) equipping on the ground educators with the tools they need to do well the socially distanced work they have been doing recently, (2) providing the training for these educators so that they can use the best tools in the best way, and (3) there are larger efforts that may inform this dialogue that are already underway, i.e. broadband access.

Breakout room focus topics: *These possible futures were framed in videos setting the stage. The source of these 5 futures are inspired by current national projects, Oregon State University, and the work of Fellows funded by the New Technologies for Ag Extension program of eXtension Foundation.*

1. **National Community Learning Network** - Advancing data-driven community decision making to address issues on access to healthcare, education, economic, and criminal justice across the nation. The integration of the Cooperative Extension System and Community Learning through Data Driven Discovery (CLD3) will combine unprecedented amounts of data to foster unexpected discoveries, innovations, and advancements to quality of life across the nation.

- Lead researchers conducting sponsored research will assist in replicating the model created through the Well Connected Communities program. Video: <https://use.vg/nBOJg9> [2:49]
2. **Digital Cooperatives** - Sharing the acquisition of the necessary broadband, connectivity solutions, technology resources across the nation expanding on the framework of farm cooperatives that was created during the 1920's and is still in operation today. Video: <https://use.vg/TRTVOF> [1:49]
 3. **Professional, Continuing Education, and Workforce Development** - Develop high quality, direct to learner, customizable learning experiences that can address the unemployment rate, economic equity gaps, and potential talent gaps in communities across the nation. Video: <https://use.vg/W6O0Kd> [2:04]
 4. **Infrastructure** - Leveraging our place-based infrastructure in communities across the nation to provide responsive platform(s) and channels for trusted information and education. Access to the equipment needed and platforms/channels and the capacity to use both. Video: <https://use.vg/gPYAHS> [1:21]
 5. **Living Ecosystem of Professionals** - The Cooperative Extension System is an engaged organization at the county and state level that enables the integration of cutting edge, science-based approaches to address issues facing communities, families, farmers, and youth. Continue to leverage our basic mission to enable people to improve their lives and communities through learning partnerships that put knowledge to work. Video: <https://use.vg/Ao1fgg> [1:54]

A [NAD group](#) was created in [Connect Extension](#), an online engagement tool, to share resources, outputs, recordings, as well as offer a place for CES professionals who may have not been able to join the NAD live to join the discussion through the same prompting questions posed during the event. The NAD group currently has approx 300 members.

Breakout Room Facilitators/Notetakers, Key Informants, and Participation by Region/Institution:

Breakout Room Focus	Facilitator/notetaker(s)	Key informant(s)	Registration by ECOP Region (approx 70% live participation)
National Community Learning Network	Ashley Griffin, eXtension Foundation Tira Adelman, eXtension Foundation	Sallie Keller, University of Virginia Mike Lambur, Virginia Tech	Northeast University of Maryland Cornell UConn Extension University of Delaware Southern

	<p>Beverly Coberly, eXtension Foundation</p>	<p>Cass Dorius, Iowa State University</p> <p>Stephanie Shipp, University of Virginia</p>	<p>Virginia Tech Extension North Carolina Cooperative Extension Mississippi State University LSU AgCenter UF/IFAS Extension University of Kentucky</p> <p>North Central Iowa State University Michigan State University Extension University of Missouri Extension University of Illinois Extension SDSU Extension Purdue University Kansas State University</p> <p>Western University of California, ANR Washington State University Oregon State University Colorado State University University of Nevada Montana State University University of Hawaii at Manoa University of Idaho</p> <p>1890s North Carolina A&T Central State University Virginia State University Tuskegee University Southern University Ag Center Delaware State University SCSU Extension</p> <p>Other University of Virginia Master Gardener Association, Josephine County eXtension Foundation Doers Consulting Alliance FoodPLUS Detroit National Institute of Agricultural Extension Management (MANAGE) University of Pennsylvania 4-H Council</p>
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			Voyagers Consulting
Digital Cooperatives	Rose Hayden-Smith, eXtension Foundation Jerry Thomas, Ohio State University	Scott Reed, eXtension Foundation Fred Schlutt, eXtension Foundation Marshall Stuart, University of Missouri Gabe Youtsey, University of California	Northeast Cornell Cooperative Extension University of District of Columbia Southern Alabama Cooperative Extension System University of Arkansas North Carolina State University Virginia Tech Oklahoma State Cooperative Extension University of Florida North Central Purdue University of Illinois University of Nebraska University of Wisconsin - Madison Ohio State University SDSU University of Missouri Extension Western University of Guam Oregon State University University of California University of Arizona Colorado State University University of Alaska Fairbanks University of Nevada - Reno University of Idaho 1890s University of Maryland Eastern Shore Tuskegee University Prairie View A&M University Fort Valley State University West Virginia State University Economic Development Center Other University of Virginia eXtension Foundation National 4-H Council

<p>Professional, Continuing Education, and Workforce Development</p>	<p>Karl Bradley, eXtension Foundation</p> <p>Molly Immendorf, extension Foundation</p> <p>Christine Geith, eXtension Foundation</p>	<p>Carolyn Williams, Prairie View A&M</p> <p>Rick Klemme, ECOP</p> <p>Caroline Crocoll, ECOP</p> <p>Paul Hill, Utah State</p>	<p>Northeast University of Maryland Cornell University of New Hampshire West Virginia University</p> <p>Southern University of Tennessee University of Florida North Carolina State University of Puerto Rico Virginia Tech Texas A&M</p> <p>North Central Kansas State SDSU Extension Iowa State University of Illinois Nebraska Extension University of Minnesota Ohio State University Extension Purdue Extension University of Missouri</p> <p>Western Oregon State University Washington State University Extension University of Guam Cooperative Extension & Outreach University of Wyoming University of Idaho University of Nevada -Reno University of California ANR New Mexico State University University of Hawaii Colorado State University Utah State University Extension</p> <p>1890 Kentucky State University Tuskegee University Prairie View</p> <p>1994 Fond du Lac Tribal and Community College</p>
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			<p>Other University of Virginia University of California Berkley Dianohia Academy College Fleet & Family Support Center Association of Northeast Extension Directors Interapt ECOP National 4-H Council eXtension Foundation Western Extension Directors Association SEDCOR</p>
Infrastructure	<p>Megan Hirschman, eXtension Foundation</p> <p>Beverly Coberly, eXtension Foundation</p>	<p>Monica Babine, Washington State</p> <p>Michael Gaffney, Washington State</p> <p>Sheila Martin, APLU</p>	<p>Northeast Cornell Rutgers</p> <p>South LSU AgCenter University of Kentucky Mississippi State University of Arkansas University of Puerto Rico</p> <p>North Central Purdue University University of Iowa University of Minnesota University of Illinois University of Missouri University of Nebraska-Lincoln Ohio State University</p> <p>Western Oregon State University University of Nevada - Reno University of California Washington State University University of Idaho Extension American Samoa Community College, Land Grant Program Colorado State University University of Hawaii New Mexico State University Utah State</p>

			<p>1890s West Virginia State University</p> <p>Other eXtension Foundation ECOP University of Virginia APLU</p>
<p>Living Ecosystem of Professionals</p>	<p>Lindsey Shirley, Oregon State</p> <p>Christine Geith, eXtension Foundation</p>	<p>Lindsey Lundsford, Tuskegee University</p> <p>Brook Gamble, University of California</p>	<p>Northeast University of Maine University of Massachusetts University of New Hampshire</p> <p>Southern University of Tennessee North Carolina State University Virginia Tech Texas A&M Oklahoma State University of Florida LSU AgCenter</p> <p>North Central University of Wisconsin - Madison University of Minnesota Extension Purdue University Ohio State University Michigan State University</p> <p>Western Oregon State University University of Hawaii New Mexico State University University of Idaho University of California ANR University of Wyoming University of Guam Washington State University Colorado State University Montana State University</p> <p>1890s Tuskegee University SCSU Florida A&M</p>

Emergent Themes:

Two themes that emerged in almost all the breakout groups: (1) the need for universal, affordable broadband access (2) the need to strengthen existing and pursue new partnerships within local communities.

- **National Community Learning Network**

- The ability to accumulate and store data is phenomenal. With this comes a need to evaluate and determine how to use data to make informed decisions.
- CES role is to help communities have access to current data and to be able to make sense of it for decision making. Field staff have connections to the local situations and facilitate the acquisition of data.
- Continued concerns over prioritizing data over human needs. This may be a perception, but nevertheless is a concern. In some cases only data points are needed and not the full flood of potential data.
- Can CES deliver data in an engaging way to lead to behavior change or community decision making?

- **Digital Cooperatives**

- This is urgent.
- “This is the moment to make this argument, to create a voice around this issue to make it happen.” - Marshall Stewart
- This is located within the acute context of social justice and basic needs in America.
- “Broadband for what? What are the foundational things that it can facilitate? How or what is needed to ensure that broadband deployment supports food security, access to medical care, learning, etc... ? Broadband is a technology, but so is clean water, food production, etc. These are tools. Is there a reason to go back to the ideas and concepts around appropriateness, scale and locality?” - Paul Treadwell, Distance Learning Advisor, Cornell Cooperative Extension
- This is community development...reinvigorating communities, providing access to technology.
- “Communities have lost so much. Many are off the edge of the grid. It’s essential that we put tools into their hands to drive the community forward.

Broadband goes through the middle of health, education, and community development.”

- Cooperative Extension should tap into our strengths and historical work to provide advocacy for communities.
- “We’re pivoting to online learning. People have got to be able to connect...people are accessing the internet in parking lots. This takes you back to the 1920s, when Extension was involved in standing up electric cooperatives. What is our role in providing advocacy for communities?”
- There is a digital divide within Extension organizations, not only relating to broadband, but in terms of access to technology tools and expertise.
- Culture change precedes technological transformation and we need to be open to new and bold ideas and ways of doing things.
- “Budgets are increasingly in trouble due to the decline in state revenues. If I were a sitting Extension Director facing furloughs and salary reductions, I’d consider new things. What would it look like if we gave our Extension folks release time to work in the private sector in technology on a paid basis, as a sabbatic, or other? This would formulate and support relationships that Extension people could bring back to a new, evolved environment.” - Scott Reed, Emeritus, Oregon State University

- **Professional, Continuing Education, and Workforce Development**

- 4-H Youth Development as a workforce development model
- Volunteerism as workforce development
- Partnerships with tech companies and others in community delivering remote services, i.e., schools, religious institutions
- CES employees who are not faculty/educators/agents also need to have access and be trained for virtual work and supporting virtual education
- Remote work skills development (both rural and urban)
- Small business development/owners as clientele to strengthen local communities
- Use other “traditional” technologies like radio, television, and print in addition to newer Internet-based technologies
- Always question, who is being left out? Why? How is CES servicing the most vulnerable populations within our communities, i.e. incarcerated youth or parents, non-English speakers?

- **Infrastructure**

- Extension needs to create partnerships with other entities in their communities to leverage what resources Extension has to achieve a greater community good.
 - Access to high speed internet is a challenge.
 - Extension is a trusted source, we can provide leadership to bring stakeholder and policy holders together.
 - What is Extension's role in evaluating platforms for our customers to use in their businesses and farm operations?
 - Extension can upskill professionals and bring additional tools to assist with video development, content revisions for virtual use, and help educators grow and think differently about virtual work.
 - Many times clients have higher speed internet than do local offices.
 - Not all audiences want a virtual solution or virtual program delivery.
 - Not all Extension professionals have cameras or equipment to participate in a virtual world
 - Working from home is a trend, how can Extension support this trend? A work from home certificate?
 - Extension needs a long term strategy for infrastructure with short term applications to bridge to the longer term solution.
- **Living Ecosystem of Professionals**
 - Communities considered frontier not just rural - lack of access to broadband - media kits from OSU to address his issue - talked about trainings needed and how to share across partnerships and with budget cuts - what would that look like with more tech heavy and what skill sets might be needed for CES educators and diversity/ equity training needed. Interesting to see how people will overcome tech challenges and gather those tips that can be shared with others
 - Partnering with external groups for DEI to get multiple state collaborations - NGOs and Food Systems and ways to overcome barriers to delivering.
 - Recognize all about knowledge, it's origin but the secret sauce is a cultural change, distributed leadership, nimbleness, etc. time for a traditional extension to go big across campus and univ wide and big in community to move beyond extension advisory community to an education council - open campus example. Public libraries, K-12, business colleges joining CES to determine needs.
 - Cooperators, learning, conveniers, trust and do we look a lot like the clientele we serve? - most cases not. We are not hiring diverse educators.

- Impressed by communications professionals in the group and essential to touch all people - those we don't know and those were not serving well. - they are key to how these discussions are articulated.

Infrastructure Needs:

- Hiring
 - Centralized specialized shared services (perhaps in lieu of training)
 - Instructional Design
 - Graphic Design
 - Video editing/creation
 - Social Media Communications
 - Intentional hiring, retention, and promotion through a diversity, equity, and inclusion lens to better reflect the communities CES professionals live and work within.
- Equipment, tools, and software
 - Universal, affordable broadband high speed Internet access for CES and clientele
 - Cellular hotspots
 - both as to lend to clientele and for CES professionals who lack broadband access
 - Wi-fi routers with wider access area and security
 - Create hotspot parking lots
 - Tablets/Chromebooks/computers (coupled with cellular access/hotspots) to preload Extension curriculum for clientele
 - Data visualization software
 - Video/Audio capture, editing equipment and software
 - Larger digital storage devices
- Shared Resources at national/regional level
 - Clearinghouse/platform to provide access to models, curriculum, resources, experts/key informants
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Training Needs:

- Data analysis, contextualization, and visualization skills/humanize data
- Instructional Design, especially reimagining face-to-face instruction online
- Soft skills training for building partnerships, working with communities/cultural competencies

- Data literacy
- Community Advocacy
- Video and digital content production training.
- How to teach online and support virtual events for ALL employees, not just faculty
- Remote working skills and benefits
- Training in diversity, equity, racial equity

New Solutions:

- New types of Digital Cooperatives reminiscent of Electrical Cooperatives and the Rural Electrification projects, including community advocacy
- Community Data analysis, use, and sharing
- Use other “traditional” technologies like radio, television, and print in addition to newer Internet-based technologies
- “Curbside pickup” of educational materials
- Always question, who is being left out? Why? How is CES servicing the most vulnerable populations within our communities, i.e. incarcerated youth or parents, non-English speakers?

Our thanks to the National Action Dialogue Design Team:

Molly Immendorf, Impact Collaborative Design Manager, eXtension Foundation
 Lindsey Shirley, University Outreach & Engagement Associate Provost, Oregon State University
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 Fred Schlutt, Catalyst, eXtension Foundation
 Ashley Griffin, Program Manager, eXtension Foundation
 Aaron Weibe, Communications and Marketing Manager, eXtension Foundation
 Megan Hirschman, Partnership Development Manager, eXtension Foundation
 Jerry Thomas, The Ohio State University
 Rose Hayden-Smith, eXtension Technology in Education Fellow, eXtension Foundation
 Karl Bradley, Leadership Fellow, eXtension Foundation

Appendix: September NEDA Extension Futures Dialogue Notes

Breakout Room 1:

Facilitator: Chuck Hibberd

eXtension Foundation Board Member: Greg Hadley, Mike Fitzner

Notetaker: Beverly Coberly

Topic: Access to farm and Ag data for ag innovation and data-driven decision-making.

- Clip from John Dwyer's AIA presentation about the abundance and use of data <https://use.vg/APkqgb> (:20)

Guiding Questions: *Each small group will have 20 mins to work on responses to the guiding questions.*

1. What are examples of how you are using farm and ag data to provide value for ag producers or industry/government partners?
 - a. Irrigation strategies, economic
 - b. Help state dept of ag
 - c. Dollars for programs they may have
 - d. Agricultural assessment for natural disasters to help gov determine extent of damage
 - e. Help farmers make decisions about marketing and promotion
 - f. Logistics of moving products out of state
 - g. Consumer behavior information about their products
 - h. Framing economic impact at micro, mezzo and macro levels
 - i. Assess demand for broadband in ag sector
 - j. Include COVID when they couldn't harvest
 - k. Helping farmers due to wildfires; risk with interfaces public/private lands
 - l. Using data to help farmer's markets and direct marketing
 - m. Agritourism and identifying niche markets
 - n. Variety trials and productivity data to make decisions in future investments in varieties
 - o. Data used in grant proposals

- p. Use mapping data at the beginning at the season to determine how to isolate various seed crops from one another
 - q. Data used in pest management and weather monitoring
2. Who are your key partners in these efforts and what is their role?
 - a. Conservation Districts...Water Check Program.. In real time with residents, cities, county governments
 - b. Local food sheds
 - c. Farmer Market Associations
 - d. Commodity Boards
 - e. State Dept of Agriculture
 - f. Extension Volunteers who do water quality monitoring (Citizen Science)
 - g. Other State Govt agencies.... Dept of Transportation, Health, etc.
 - h. Range of NGOs and indigineous Farmers
 3. What are the barriers either for you or for ag producers/industry to gain value with farm and ag data?
 - a. Loss of resource to collect data in Extension
 - b. Compromised by industry at times
 - c. Lack of bandwidth
 - d. Protecting identities of people with climate data
 - e. Lack of knowledge or skill in use of data
 - f. Lack of access
 - g. Lack of coordination of when data is needed and by whom
 - h. Cooperative/Collaborativewhere is the trust of the data

Room 2:

Facilitator: Scott Reed

eXtension Foundation Board Member: Damona Doye

Notetaker: Molly Immendorf

Topic: **Aggregation and use of public data for community decision-making**

- o National Community Learning Network framing video <https://use.vg/R8WMny> (1:29)

- Provide example [All Things Missouri](#).

Guiding Questions: *Each small group will have 20 mins to work on responses to the guiding questions.*

1. What needs and opportunities have come up since COVID19?
 - a. More visible problem of devaluation of science/delegitimization of science
 - i. CES is the research base and go-to
 - b. New partners and opportunities, i.e. WV public television and Youtube
 - c. Barriers have been torn down, flexibility, compassion and creativity have emerged
 - d. How do we bridge the programs and services as a system (are there redundancies) and collaborate with a global audience in mind?
 - e. Decision-makers have a need to sort through multiple issues at once and CES can help
 - f. CES has the opp to help local decision-makers to make decisions locally and work with local and state dept heads
2. What are the barriers to collecting, sharing, and engaging communities this way?
 - a. Broadband (internet and equipment) needs
 - b. Local disregard for safety
 - c. Adequate training for our staff to provide alternative delivery methods
 - d. Time to build structures and collaborations as a system
 - e. Need similar platforms and infrastructure (data format, etc.)
 - f. Not necessarily a barrier, but local educators are raising concerns about their roles when area and state specialists lead virtual programs. They want to be visible to maintain local funding support.
 - g. Incentives and credit for team created programs and adapting/using existing programs (not scholarship)
 - h. Using data to make your point and not looking at all of the data.
 - i. Selective use of data

Room 3:

Facilitator: Fred Schlutt

eXtension Foundation Board Members: Ken LaValley, Roger Rennekamp

Notetaker: Megan Hirschman

Topic: Advocate for broadband technology in rural and urban communities that have low or poor accessibility with a digital equity emphasis

- Cooperative Extension Infrastructure video <https://use.vg/gPYAHS> (1:21)

Guiding Questions: *Each small group will have 20 mins to work on responses to the guiding questions.*

1. If you receive more money/funding for broadband, what would you do with it?
 - a. Ken LaValley-Digital Equity-where does it need to go? Where would broadband infrastructure make the biggest impact? It is so critical, how can we piggy back with the telemedicine and rural health to help get this infrastructure to our rural communities.
 - b. Jacqueline Wilkins-\$3MM to help increase fibre broadband across the state. The infrastructure locally is a challenge. How can we increase our private partnerships to increase broadband. Once it is there, can we distribute our used equipment (University equipment) to communities that may be able to use them (Ipads, computers, monitors, etc...)
 - c. Pete Pinney-not everyone has wifi, but everyone has access to a phone and satellite access may be the next step for us to provide remote education.
 - d. Vonda Richardson-If broadband is available, people may still not be able to afford it. They had a mobile unit that could be accessed (hot spot).
 - e. Fred-Can we work with our electrical cooperatives or cellular networks? Work with partners like the AB... Land O Lakes group.
2. Since COVID19, what are the opportunities for Extension's role in community health prevention online?
 - a. Pete Pinney-ties to internal networks and partnership networks--the remote education for food production, food preservation, healthy nutrition, diabetes prevention...
 - b. Roger Rennekamp--providing basic health information/literacy. Social, environmental components to individuals health within the community how can we help communities begin coalitions that can create impact

Room 4:

Facilitator: Rick Klemme

eXtension Foundation Board Member: Barbara Petty

Notetaker: Ashley Griffin

Topic: **Build community technology networks and hubs including low-tech and offline solutions.**

- Digital Cooperative video <https://use.vg/dYnhxf> (1:22)

Guiding Questions: *Each small group will have 20 mins to work on responses to the guiding questions.*

1. Do you have examples of community technology networks and hubs? (how are people using your hotspots/internet access points? Anything emerging from that?)
 - a. UFL - networks to allow for classes online
 - b. UCA - statewide corp to support K-higher education have access to Internet - good fiber but some are in rural areas - How can we raise towers to broadcast via wifi / mobile. Getting fiber example in Nevada down eastern/CA - high end fiber in the ground thru a cooperative with local gov't and others to lay this Digital 395 - example to replicate
 - c. U of IL - ramped up for drive up wifi access - working remotely and closed CES offices - provide drive up services open for anyone in the community that needs Internet access in their vehicle. Child learning or business, purchase of necessary items
 - d. Ron Brown - people purchased hotspots to share with their communities
2. What innovative low-tech and offline approaches are your colleagues using to reach audiences without adequate internet access or resources to reach public hubs?
 - a. Radio for underserved communities and don't have English as a first language
 - b. FL is using radio too with migrant farm workers and to big producers with families that need this support
 - c. PV A&M - Cable stations as well as radio stations
 - d. Ron Brown - pickup and grab bags with food and educational materials - tying these together

- e. Barbara Petty - mailing out information to classes on jump/thumb drives
 - f. Rick Klemme - Possibly using unspent travel funds for this
 - g. Mark Latimore - mobile information technology units - food boxes and census
 - h. Alaska uses the *Remind* app for broadcasting text messages to families for food pickups, etc.
 - i. Southern Univ. - mobile unit to travel the state to provide broadband
 - j. Colorado - mobile hotspots and CSU extended campus investing in more virtual tech to teach in one location and expand to others - Zoom and people in rural communities can come together to access these resources
3. What are the entrepreneurial opportunities? (i.e., remote work, digital co-ops)
- a. Glenda Humiston - California Broadband Cooperative is a newly established entity for the purpose of developing and operating the Digital 395 network. As a public-private partnership among local and state agencies, organized labor and for-profit companies, it is the best organizational form that ensures representation by a wide range of interests in the Eastern Sierra. Praxis Associates, one of the key partners, has been designing and constructing fiber networks, as well as providing advanced network services to businesses and Indian reservations, throughout California for 5 years. Another key partner, Inyo Networks, is an existing telecommunications provider and will be responsible for management and business operations of the network.
<http://www.digital395.com/>
 - b. Ron Brown - examples of CES working with Electrical Cooperatives to provide Internet access
 - c. KY - gov't funded broadband initiative - KY Connect - ready the end of 2020 - we will work with individual communities and they will have all agencies - sell with other Internet providers - help to synergize discussions in the communities Kentucky Wired is the project name
<https://kentuckywired.ky.gov/Pages/index.aspx>
 - d. Utah State University's remote workers initiative
<https://remoteworkcertificate.com/>
 - e. Find Food Illinois -
<https://extension.illinois.edu/news-releases/find-food-illinois-new-community-map-locates-food-assistance-sites>
 - f. Jorge Atilas - if we were to be given money what would we do with it - how do we use this to create economic activity - improve lives and not increase cyberbullying, etc. - how do we make this make an impact