Promoting Organizational Change Through Collaboration

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How might youth development professionals do their work in the future? With reduced budgets and staffing and changing demographics, Extension educators are looking at new ways to fulfill the land-grant mission through new audiences. This new look connects community-based programs through the Internet, where professionals work hand-in-hand with other professionals from other states as if they were in the same county. Technology is bringing the knowledge of the university to every home in the nation.

Since 1991, the Cooperative Extension System (CES) Children, Youth, and Families at Risk (CYFAR) initiative has supported 163 community-based projects in 49 states and 3 territories. These projects serve approximately 99,000 youth and 17,000 parents. More than 20,000 youth and adult volunteers in these communities contribute time and resources to these programs. Many of the projects developed out of collaborations between Extension and other community organizations and citizens to create and sustain programs that meet critical needs of children and families in their community. These CYFAR projects incorporate research-based strategies for effective programs–collaboration, citizen involvement, inclusiveness, effective instruction, experiential education, positive youth development, and family ecological principles.

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The CYFAR initiative is unique in that it not only funds the vital community-based programs that are its core, but also provides seed money to initiate CES organizational changes necessary to program for this broader audience and to effectively and cost-efficiently continue our work with children, youth, and families into the 21st century. Some of the dollars for community-based programs provide funding and support to "grow" the strategies implemented in these communities and programs into other communities and programs. This paper focuses on three CYFAR components that are changing our system: the five National Networks of subject matter experts, the community-based Internet Connectivity, and CYFERNet.

National Networks

The National Children, Youth, and Family Networks, composed of content specialists from state and local Extension offices across the country, are key components of the CYFAR initiative. The networks merge human, program, and technology resources of all land-grant universities in the areas of child care, health, collaboration, family resiliency, and science and technology to assist communities. They provide broad access to relevant research, curricula, program materials, and training, and offer professional development through continually updated information, new program ideas, and discussions facilitated by educators. Network content specialists work in teams; hold regular conference calls, e-mail exchanges, and annual meetings; review each other's work; and create products that credit the contributors and their

respective institutions but are clearly a network product. The networks interact and communicate with communities through individualized in-person training; as cosponsors of national and regional conferences; through electronic and hard copy newsletters; through the posting of existing Extension resources on a Web site; through development of new resources, published online as well as in hard copy; and as hosts and participants in e-mail discussion groups and web chats.

Internet Connectivity

The second strategy is community-based program Internet access. Each of the community-based sites receives a one-year stipend for the purchase of a computer, software, Internet access, and training on how to use the Internet and how to integrate online resources and activities into CYF projects. This connectivity component was added because desktop Internet access is not sufficiently prevalent in local Extension offices to ensure access to online network resources, and other community-based sites are even less likely to have Internet access. Since the CYFAR initiative promotes the use of the technology to gain access to needed resources and communication streams, Internet connectivity ensures that our primary audiences, the community projects, also have access.

CYFERNet

The third strategy, CYFERNet, is the Internet-based children, youth, and family infrastructure that links and supports the five networks and assists communities with computer and information technology issues. CYFERNet is a collaborative effort of universities across the country with each state's CES communication or computer unit, the national network, and community-based project and content experts in each state. The goal of CYFERNet is the development of a nationally coordinated and distributed online system that supports all CYF programming in Extension. The team works with the CYFAR initiative through training, technical assistance, and liaison to promote the use of the technology for teaching, learning, information gathering, and communication; develop and procure new online CYF resources; and providing linkages with and promotion to other CYF organizations. Key components of the CYFERNet work plan in 1998 include computer programming to create online interactive educational activities, hosting training around the use of online collaborative tools, and coordinating the National 4-H Youth Technology Corps.

The History Of Organizational Change

When the CYFAR initiative started in 1991, Internet technology was used only by a few innovators among the content specialists in the Extension system. Gopher databases were in their infancy. Few faculty had an Internet e-mail address (or if they had one, used it). The CES model for funding programs was to put out a "request for proposals" and states or groups of states competed against each other for funding.

In the autumn of 1993, Extension faculty interested in forming a national center around one of four CYF topics met in Minneapolis for an informational meeting. When they got there, they learned that the model had shifted: instead of a center, there would be a network. Anyone and any state that wanted to be part of the network could be a network partner and part of the funded proposal, provided they could reach consensus with the other potential partners. USDA asked that only one proposal be submitted for each network; they would not read competing network proposals.

For those who came to the meeting in hopes of bringing home significant dollars and a prestigious center for their state, this was uncomfortable news. Some who attended this meeting left and never returned to the table, but most faculty became collaborators instead of competitors. Everyone could be a part of the process. How would they work together? How could they pool their resources and strengths to end up with a strong proposal? How would a "virtual center" work? Could there be a network that had no geographical home? How would they be rewarded in their state system? National networking brought to the forefront the concepts that state Extension faculty do not have to compete against each other to gain benefits and recognition within the system, and that there are tangible benefits to sharing expertise at a national level.

Interactive environments like Virtual 4-H and Cyber Camp incorporate the principles of experiential education and positive youth development.

This change had another fundamental impact: It placed the burden of determining the quality of the ideas and the solution to a need for resources on a team of state content specialists. The national program leaders agreed there was a need for a network of resources, but the state specialists decided on the focus and the process. National program leaders could reject a proposal as inappropriate, and did review and comment on the proposal, but this effort gave major responsibility for deciding on the priorities and solutions the system would offer to a multistate team of content matter specialists.

Four network teams were formed, submitted proposals, and were funded. And as they met in the spring in newly formed content area specialist networks, they heard a surprising and almost universally unsettling piece of news: CYFERNet. They learned that part of this CES CYF network would be CYFERNet, an information technology infrastructure for their networks. They learned that CYFERNet would provide an Internet-based gopher information system and electronic mail groups to support their work, and that the networks were expected to contribute resources to this gopher database, and use e-mail to communicate. At first the technology was viewed as replacing and deprecating the human networks and relationships.

By 1995, many had changed their minds about the technology. E-mail was used and accepted more, and the convenience of having immediate access to information was compelling. The networks realized that for a national collaboration to work, they needed the ability to span time and geography. The technology allowed this. There continued to be difficulties: Some individuals had no e-mail access, and had to have messages faxed to them to stay networked. Others lacked desktop access to the Internet. Other barriers to use were lack of training, lack of time to learn new skills or use the technology, and lack of knowing there were resources online valuable enough to seek out.

By 1995, great strides had been made with Internet use and access by the networks, but online resources and communication were not getting into the community effectively. The Internet connectivity component was added to all existing community-based projects as well as

those funded for 1996. Funding was for hardware, software, and minimal access to the Web and e-mail, as well as training in the use of these resources, for project staff and participants. For most sites, it was late 1996 or early 1997 before the equipment was installed, the Internet service provider in place, and the training to use the Internet in place. This is the first time USDA funds were approved for the purchase of hardware for local Extension offices and Extension collaborators, on anything approaching this scale. This recognized that Internet access at the local level was a key information and education tool for Extension.

And the change continues. While earlier information systems compiled online resources on a single host server, new technologies have made a distributed system possible. CYFERNet began collecting, creating, and hosting resources on a server in Minnesota, but it was never the intent that these resources would remain there. As more states acquired the ability to host their own gopher or Web site, as state specialists became more comfortable with the technology and authoring online resources, and as the networks strengthened and were able to take greater responsibility for their on-line presence, each was encouraged to "take back" their contributions to CYFERNet. Thus, CYFERNet is increasingly a distributed information system, its resources divided among eight major state hosts, with links coordinated by CYFERNet and the networks and with links to Extension servers across the country.

This distribution frees up the CYFERNet team to move to the next technology innovation: the use of the Internet not just for information access, but for teaching and learning environments. The role of Extension faculty is more than to access research-based information; it is to educate. CYFERNet is working with the networks and multistate teams to develop educational interactive environments for youth that incorporate the principles of experiential education and positive youth development. These efforts include Virtual 4-H Clubs, Cyber Camp, and a Cyber National Fair. CYFERNet is also working with the networks in the use of online collaborative tools, such as the incorporation of Web chat, the shared use of an online "white board," and the controlled use of a presentation software program or HTML. Through the work of CYFERNet, information technology is being more fully integrated into the CYF work of Extension and accepted as a medium, like conference calls and paper publications.

Organizational Change

The next step is called the "strategic expansion." How can the five content area networks and CYFERNet be knit together into a whole that allows them to be more flexible and responsive in working with CYF communities? Will the CYFAR initiative fulfill its potential to influence organizational change? Here are some changes CES can look forward to.

Becoming a National Staff

CES is a national organization, but members have historically tended to work and communicate in "towers": County faculty would contact their state faculty when they had a question or needed a resource, and the state faculty would contact the national office. People are very conscious of their local and state funding and their need to serve only their geographically defined audience. The networks made a system whereby state faculty could communicate and work together as a national team. Today, anyone can contact the network without going through the state faculty. As members contribute to one national effort, they get back the riches from many others, resulting in more resources for each geographic audience, not less. States can

now hire staff to complement a national team of CYF experts; they don't have to have an expert in every area of CYF issues, but do need enough of an expertise base to serve the needs and demands nationally. Each state can hire more specialty people to work with diverse, but smaller, populations and issues, whereas if all had to hire a full complement, they couldn't afford to get special skills met.

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Working on Products and Resources at the National Level

Multistate teams create curricula and resources. Products are higher quality because developers can call on greater expertise than if they had to rely on resources within a state. Because greater use is expected for a national product, more resources can be put into its development. A national staff can provide a much faster turn-around time and be more responsive to issues.

Changing Roles

Extension faculty traditionally have been the content experts and educators. With information online, instead of being the expert or "sage on the stage," they can be the facilitator, or "guide by the side." They still need content expertise, but staying up to date in the field will not be as crucial as knowing where to go for up-to-date information in all the specialty areas related to their work. Also, skills they've always had and used may become more important to their roles in the community: knowing who, knowing how, interpreting information for local conditions, facilitating meetings, being the unbiased party in a conflict, guiding a collaborative process, and teaching how to determine the quality of information and credibility of its source.

Changing Technology

Technology is critical today. Educators use it to communicate, to distribute and create access to information, and as a teaching and learning tool. Usually technology is developed to help us more effectively do something we are already doing. For example, computers were originally thought of as just more efficient typewriters. Today, we recognize that the computer is an important tool for accessing information, for communicating, for composition–how we write and organize information is fundamentally critical for effective communication. It isn't just the use of the machine; there has been a fundamental change in our work culture resulting from the introduction of the technology.

Within the lifetime of the networks, voice mail and e-mail have changed how we communicate. Secretaries used to take messages; having a person record your messages and open your mail was an indicator of power and position. Today, it's a sign of a technological dinosaur; the filters and time delays hamper one's ability to participate in fast-paced, interactive communication. Technology used to be purchased for secretaries: they got the first computers and the best computers. Today, faculty have computers, most do their own keyboarding, most read their own e-mail.

Redefining Extension

Staying in business will involve refiguring out the role or business of Extension. In the 1940s, trains carried almost all passengers and freight in the United States, but carried only a small percentage by the 1960s. Many of the train companies went out of business. It is only those

who viewed themselves as being in the "transportation industry," rather than the "train industry," that survived; they kept doing business by starting airlines and trucking companies to take advantage of the changes in the transportation industry.

This is also Extension's challenge. As telecommunications changes, how we communicate and who we communicate with, how we create information and share information, our roles, our rewards and recognitions, and our responsibilities will shift. As Dillman (1986) pointed out, "an [Extension] agent without ready access to a full array of information technologies in the 1990s would seem to be as handicapped as an agent without a car 50 years ago."

Technology allows us to take advantage of one of the great strengths of CES: our national network of experts and resources. Technology will also continue to impact how we work and the environment in which we work. It can allow us to think differently about how we structure our work and our budgets. But many of the issues remain very personal:

- How do I get recognition for myself and my state Extension service when I work collaboratively on national or regional projects?
- How do I get recognition for my contributions to electronic media when traditional paper journal and book chapters are what is valued? Especially when it's easier than ever for someone to steal my ideas and words without acknowledging my contributions?
- How does Extension maintain a competitive information and education role when information is an economic resource and a commodity and Extension must compete for the customer's time and attention?
- What is the role for Extension in a global society where anyone can have a voice and virtual communities are made up of individuals with common interests regardless of nationality or location? The expert model doesn't work in virtual communities.

Summary

Extension is a strong nationwide resource in providing access to research-based education for at-risk children and their families. Effective state and community collaborations are in place to continue supporting these community programs. The networks develop core resources and are positioned to respond almost instantaneously to national needs. Connectivity is providing computers, software, Internet connections, and technology training for the citizens least likely to have the resources for access–youth and adult participants in community programs. With CYFERNet, information technology has been integrated into all our children, youth, and family programs. Technology plays a vital role in access to information–for teaching and learning and for communication and interaction.

CYFERNet is at http://www.cyfernet.org on the World Wide Web.

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