Communications Delivery— Past, Present, Future

Eldon E. Fredericks

Current Status—Program Delivery

Much of what agricultural communicators and other Extension workers regard as program delivery started with agricultural and home economics classes at each state ag college.

It then progressed to local county Extension agents who helped farmers and their wives during home visits, by organizing granges, and with county demonstrations and fairs.

Next we moved to railroad trains to carry campus special-ists and exhibits on tours of the state wherever the tracks led. Improved highways and better automobiles made travel faster and easier. Thus efforts were increased to hold local meetings.

Local news media, particularly newspapers, were a strong force in communities. Generally, the copy provided to them by Extension workers was not written in newspaper style. Enterprising pioneers created my profession, now called ag information, ag communications, etc. In most cases, a one-person staff at the college began turning out news stories that were accepted by many local newspapers.

Radio came along, or was discovered by Extension services. We used wire recorders, hooked car batteries to "portable" recorders that weighed 45 pounds, and added a radio specialist to our ag information staffs.

Eldon E. Fredericks, head of Agricultural Communications at Purdue University, delivered this speech at the ECOP Electronic Technology Task Force meeting, Tucson, Ariz., January 17, 1984.

Next came television and no one knew how to deal with the new medium. Many of us expanded our radio activities by adding a camera in front of the microphone. Few public institutions have made the huge investments needed to utilize television effectively. We have "ad-hoced" by trying to do more than just adding the camera to the radio microphone. However, I'm appalled every time I view the credits following a half-hour newscast. Think about the talent that goes into each production, plus the investment in studio facilities, and the 15 minutes of network fillers. Compare that with the usual offerings from our institutions!

Word processors, or computers with text editors, are displacing typewriters for copy preparation in many offices, including our institutions.

In a few instances we see attempts to stretch the computers' capacity to store, retrieve, and distribute information, albeit still in a paper-emulation mode.

Future Applications—Program Delivery

I hope we can make greater use of the many forms of new technology becoming available to educators (communicators). Let's work hard to develop a strategy to use computers, videodisks, and satellites effectively. I don't believe we can survive the radio add-on syndrome when dealing with this generation's communications technology! We can't afford to miss the opportunity to use this technology in new, exciting, and as yet unthought-of ways.

We're trying to bring computer delivery and traditional communication delivery programs together at Purdue. That's fairly easy to do. A dean recommends the organizational change to the governing body of the university and we have an Agricultural Communication Service Department. On paper that was no problem. Putting the wheels on and making it go, that's another story.

The overall assignments of this ECOP task force seem to epitomize what we are attempting to accomplish at Purdue.

Let me sketch for you some of our departmental efforts and goals:
1. Use of video in Extension teaching. We've been heavily involved in a statewide television network called IHETS—Indiana Higher Education Telecommunication System—for more than a year. The network provides as many as 150 viewing sites in Indiana. Many are in

hospitals, industrial sites, regional university campus buildings, and 10 are located in Cooperative Extension offices. We're committed to three kinds of programs—graduate courses, Extension schools, and in-service training for field staff. Our efforts with Extension schools have been positive. Participants pay as much as $50 for a 4 to 6-week series of 2 to 3-hour presentations. Generally these programs are well-received and the attendees come back for more.

But, I warn you, this is a different kind of communication than our information staffs or our specialists are trained or skilled at delivering. The scheduling of facilities, coordination of production time and talent, as well as the equipment for recording and delivering does not come without increased costs. We have not honestly budgeted for the increased workload and are beginning to receive comments from our staff about quality problems. This is another example of needing to go beyond adding a camera; in this case, we need to be behind the speakers' podium.

2. Computers to set type. Over the past 6 or 7 years our publications group has believed we could manipulate manuscripts and set type without all the retyping associated with the traditional editing and publishing process. For the past 2 years we transferred files from one computer on campus to the disk storage of our departmental typesetter. Within the last year we have acquired the skills to transfer manuscripts from several brands of microcomputers and several different campus computers. Now we are transferring the final manuscript directly from the computer to the typesetter in page format and have almost eliminated the graphic pasteup of final copy. That may seem elementary to you but it took a combination of attitude adjustment, computer programming, building trust between authors, editors, artists and machines, and finally a replumbing to accommodate an automated photo developer to keep up with the speed of the computer-driven typesetter.

3. Computer transmission of press releases and other information. A goal of mine for years has been the direct transfer of information from university communication offices to news media. It has always seemed so simple to me, yet few of us have made it happen on a routine basis. At least we have not at Purdue. We're close! But I

have been saying that ever since my days at Michigan State 3 or 4 years ago. We do routinely send copies of all press releases to county Extension offices via the FACTS system. But, that is another of those paper-emulation modes I cautioned about earlier. And, we think that we have about rebuilt the mechanism for PENS—that stands for Purdue Electronic News Service—for the third time. We have begun to transmit copy to Agri Data Network and I'll touch on that a bit more later.

Our computer group has developed a bulletin board that provides Extension newsletters and other information to be read by persons with computer terminals or microcomputers and telephone modems. The bulletin board also permits persons with certain hardware or software emulation capability to access and run FACTS computer decision software.

Our FACTS applications programs are not readily available outside the county Extension office in any form other than the campus computer bulletin board. One of the criteria required of any hardware upgrade within our FACTS community will likely include a dial-up capability to extend those programs. By expanding the base from which clients of Indiana Extension can get information we will be taking the computer out of the paper-emulation mode. That same computer will allow a county staff to develop a local bulletin board that can be viewed by persons with appropriate equipment. The system will likely also include local media so that information can be made available to people who do not have computer equipment. That is important if Extension is to continue to serve all persons.

5. Future dreams. I believe the real breakthroughs in information delivery will come when we take advantage of the graphic capabilities of the emerging technology. I told you of my bias against being comfortable using the computer to emulate our paper-generation programs. Even to use the computer to transmit from one screen to another does not take us far enough from the paper-emulation mode. It takes too long to read and digest information in that format.

We should try, where feasible, to eliminate much of the text now in use in favor of a solid marriage of videodisk and the microcomputer. And *that's* going to

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require creative communication skills! Dream with me a minute, though. Think about the opportunity to portray on a color screen, a plant growing from the soil surface. As it grows to the first-leaf stage the viewer can stop action to review the damage caused by an insect. The insect will be in full color to aid identification. It will also be possible to rotate the creature from side to side so that all views are visible. The next frame of information includes a picture of the label of the chemical that could be used to control further infestation. Probably at this point we can continue the development of the plant through maturation. I hope we can show the expected field if the infestation is treated or not treated. In that way the farmer could decide whether to spray or not based on his own economic, climatic, and other values. Nearly all of this information could be provided pictorially—with pauses for direct input from the farmer.

Or, those Extension staff working with interior design might use the same system to show a kitchen before remodeling and allow the student to add cabinets or change paint colors interactively.

Shouldn't we be looking at these kinds of options to integrate the marvelous technology we've heard about from other speakers at this meeting? Developing such· sophisticated information delivery programs will require coordination and sharing of expertise across state lines. Industry will have to provide the interfaces between ¾-inch and ½-inch video tapes and video disks that are erasable or that can be used in more than one brand of playback unit. Computer programs will have to be transportable from one machine to another. There are many technical problems to overcome. Will we be ready when those are solved?

Private Sector and Other Agencies

It won't be easy. But, somebody is going to do it and I believe the USDA/land-grant system has the subject-matter expertise in agriculture and consumer information not available elsewhere. Do we have the willingness to put together the framework needed to make that knowledge available in 21st-century methods?

I mentioned earlier that our Purdue staff is delivering news releases to Agri Data Network. The University of Illinois is

also working with them, and others may be, too. I don't see this as any great breakthrough. However, it is an additional outlet for our information.

A cooperative spirit and many agreements will be needed to work out the details of private sector-government partnerships that lie ahead. How best to develop, market, and distribute agricultural software? Should university staff stay out of these educational media? Should university staff be in competition with private information providers? Do communication staffs have a role to play in this educational effort?

How about the development, marketing, and distribution of information via videodisk? Who will take the leadership with this new medium? Does it look just too expensive for our institutions—so by default the private sector will become the source? Traditionally, we were proud when our clients wanted information from us because they thought it was delivered with as few biases as possible. Will that be true with 21st-century methods?

Can we plan now to allocate funds for satellite transmission of Extension programs? We don't have very good track records on developing publications for use across state lines. We are much better at reviewing something already published and then making some changes and coming up with our own version. Do we need to provide promotion incentives for national programming? How about promotion incentives for working with private information providers? Can we develop capable expertise in delivery so that industry will make grants available for innovative communication/educational efforts?

As a communication leader, a major part of my job is convincing other communicators that the future is now. We need to maintain much of our present methodology while we create new methods. The trick to success will be maintaining the present without appearing to cling to it. As educators and communicators we must figure out how to use new technology most effectively. I don't believe we will be replaced by new tools; however, if we don't learn to use new tools others will use them to replace us!