Reaching the Black Media with the Land-Grant Message: The Louisiana Story

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An effective media relations program at a land-grant university not only disseminates educational information, but also garners continued public support, which may be needed now more than ever as all public-supported institutions face budget cuts. Primary targets for media relations efforts include the national press, agriculture press and local media. All deans and directors are pleased to see positive coverage in the *New York Times or Wall Street Journal*. They also appreciate features in agriculture magazines, local newspapers and on local television stations.

However, one group of media often overlooked as recipients of press releases and media relations efforts is the black media. As a result there is little coverage in these publications of land-grant universities, even the 1890 universities, or of the issues these universities espouse, such as food safety, nutrition, health, rural development or environmental protection.

This paper will examine the development of a strategy to reach black media with the land-grant message. This is important for a number of reasons:

1. The African-American community has great need for the type of educational information developed and packaged at land-grant universities. For example, there are few places where they can turn for expertise on health and nutrition issues specific to them. This type of information is available from land-grant universities.
2. The African-American community needs to see their place within the agricultural fabric of this country. Even though the number of African-American farmers has shrunk dramatically, they still are a vital part of the economy. Many African-Americans have played key roles in shaping agricultural policy in this country and continue to do so. The public needs to see this.
3. The agriculture profession has a need for the best and the brightest. However, the pool of available talent often excludes African-Americans. They do not readily enroll in colleges of agriculture or home economics. Nor do they readily look into career opportunities within this profession.
4. The land-grant community needs the support of the African-American community. Land-grant universities cannot afford to overlook any population group, especially a group so profoundly a part of the land-grant heritage.

Black Newspapers

Black newspapers became an integral part of this country's history with their beginnings about 50 years after this country's founding. The primary reason for their coming into existence was to give voice to the anti-slavery movement. The first black newspaper was*Freedom's Journal* published in New York City with its first edition on March 16, 1827 (Emery, 181). Two men, John B. Russwurm and Samuel E. Cornish, pooled their resources and founded the paper, which was heavily religious and anti-slavery (Boyd, 10). Mr. Russwurm is believed to be the first black man to graduate from college in this country, graduating from Bowdoin College in 1826. Mr. Cornish was a Presbyterian clergyman. Neither was an experienced journalist, and their different philosophies led to a split six months after the first edition. Mr. Russwurm was an ardent colonizationist believing in a return to Africa. Mr. Cornish thought such an idea folly. Cornish left the paper. Two years later Russwurm also left the paper and went to Africa, helping to found newspapers there. Cornish went on to start and work for other black newspapers (Boyd, 11).

The most famous of the black newspaper editors before the Civil War was Frederick Douglass, an ex-slave who became an internationally acclaimed spokesperson for the abolition of slavery. Douglass founded the North Star in Rochester, New York, in 1847 as a way to give further voice to the anti-slavery movement (McFeely, 153). The paper was later renamed *Frederick Douglass' Paper* and still later it evolved into *Douglass' Monthly* (McFeely, 167, 182).

Another noteworthy African-American editor from the 19th century was Ida Wells-Barnett. During the 1880s, she was co-owner and editor of the *Memphis Free Speech*. However, her stand against lynchings created a backlash, and her paper's facilities were sacked and destroyed in 1892. She went on to work for other black newspapers including the *New York Age* (Boyd, 12).

The *New York Age* was one of the most famous black newspapers at the turn of the century. It was widely read by national political figures, including Theodore Roosevelt. The driving force of the newspaper was T. Thomas Fortune, its editor, who has been called the "dean of black journalism" (Boyd, 12).

The story of black newspapers in this country parallels the story of white newspapers to a certain extent. Their numbers grew and reached a heyday in the 1930s, '40s and '50s. Just about every city with any sizable black population had at least one black newspaper. Since then, their numbers have diminished significantly as advertising dollars have been funneled elsewhere. Exactly how many there are is difficult to determine. Listings of newspapers are not segmented as to black and white, and some black newspapers have a short life span.

As with white newspapers, the major black newspapers are in the big cities, such as the *Houston Forward Times* and the *Amsterdam News in New York City.* Although *Amsterdam News* is published Monday through Thursday, most black newspapers, even the major ones, are weeklies and not dailies.

Black newspapers are a specialty or niche publication. Though each is unique, they share these traits:

1. They tend to feature articles that show African-American people achieving.
2. They try to present articles that offer advice aimed specifically at African-American readers.
3. They try to provide the African-American perspective to the news of the day.
4. They try to present news not mentioned in the white press.
5. They represent community journalism.

There is definitely community appeal to black newspapers. These newspapers include lots of smiling people photos, lists of people attending events or students on honor rolls, announcements of upcoming events in the communities, opinion pieces from local African-American columnists, and small ads from small, local businesses. Here is a sampling of the content from three black newspapers:

The New Pittsburgh Courier, Oct. 7, 1995:

This issue featured Associated Press stories but only about African-American people. There was only one locally produced news story and that was coverage of a local business conference aimed at African-Americans. This issue also included a two-page spread that included several local columnists commenting about local and national issues.

The Chicago Defender, Oct. 23, 1995:

This tabloid-style publication is one of the larger of the black newspapers. This issue included 28 pages; the last 4 provided sports coverage. The dominant stories were produced by Defender reporters. Evidently, the paper provides travel money for these reporters since one of these stories emanated from Haiti.

Of note in this issue was usage of four press releases from the University of Illinois extension service: "Redefining the natal relationship" (adult children and parents); "Managing the monthly budget" (warning signs of financial troubles); "Grandparents and grandkids can cope with pain of growing older" (when grandchildren reach puberty); and "Check lease before buying pet" (pets in apartments).

The Atlanta Inquirer, Nov. 11, 1995:

This publication has a broadsheet rather than tabloid format. Of the six stories on page 1 of this 10-page issue, three stories were produced by Inquirer reporters about local events. The other three were press releases: changes at a local health care facility; students at a local college named to a who's who publication; and an upcoming meeting sponsored by a local human services agency.

The Black Press in Louisiana

In Louisiana, seven black newspapers have been identified so far. This number may increase with further research. It is difficult to obtain precise numbers because listings of newspapers are not segmented by race. The newspapers identified include: the *Alexandria News Weekly;* the *Baton Rouge Post and Weekly News* in Baton Rouge; the *Free Press* in Monroe; the *New Orleans Tribune* and *Louisiana Weekly* in New Orleans; and the *Shreveport Sun*.

Black newspapers in Louisiana exhibit varying levels of quality. At the low end are the papers runs by business people with no journalistic training. One black newspaper in Baton Rouge, for example, is known to have clipped articles from the *Baton Rouge Advocate,* the majority paper in the city, and pasted them in the layout.

The New Orleans Tribune, on the other hand, is a high quality, attractive, well-written newspaper. This paper just celebrated its tenth anniversary. It began as an attempt to offer another view of the news in New Orleans. This city has only one dominant, majority newspaper the *Times-Picayune* The founders of the *TribuneTimes-Picayune*. They contended that there needed to be more positive coverage (Allman, 6). Blacks are actually the majority in the city, which is 65 percent black. The three mayors of New Orleans since theTribune started in 1985 have been black.

The Tribune heralds the following achievements:

- *exposure that the legal services contract awarded for the convention center went to a firm that had never hired an African-American lawyer;*
- *the disproportionate number of jobs lost by blacks in the city; and*
- *in-depth rather than cursory coverage of successful black figures in the city.*

Although the editors of the black newspapers in Louisiana vary in journalistic talent and mission of their publications, they share the enormous need for advertising dollars. They are too dependent on black businesses for advertising revenue. These businesses are sometimes built on shaky foundations, and the owners are tight-fisted about letting go of any money for advertising. If they do, they tend to go with radio stations that target the black community.

These editors also have to be extremely frugal with overhead expenses. They do not have the computer equipment necessary to receive press releases on-line. They tend to be sparing in their use of fax machines lest they waste expensive fax paper. They will return long-distance calls but appreciate when you call them back.

And, finally, these newspapers are run with a shoestring staff. Each staff person wears many hats, and all are extremely busy. Some have journalistic training. The chance for errors is great.

Strategies for Working with the Black Press

Black newspapers are a specialized market for press releases and media relations efforts from land-grant universities. As with the white media, they are most interested in any angle that shows the news or issues through people, especially African-American people.

Following are stories that have the potential for appeal to the gatekeepers of these newspapers:

1. **Entrepreneurial opportunities with specific details from people who have succeeded.** Minorities look to small business opportunities because of exclusion from high-paying jobs in white-dominated institutions. For example, the *New Pittsburgh Courier* gave a full page of coverage to a seminar on business opportunities for blacks.
2. **Advice on health, especially concerning heart disease, strokes, obesity, diabetes.** African-Americans suffer disproportionately from the major lifestyle diseases that threaten all Americans. It is a common practice for black publications to look to black doctors for advice columns. For example, in the Nov. 5, 1995, issue of the *Chicago Defender,* a black female doctor wrote on anorexia and bulimia. *Ebony* magazine has a department, “House Call,” in which readers’ health and fitness questions are answered by experts. If writers for black publications have press releases about nutrition, health and fitness from land-grant universities in their files, they may use them in other ways as well. For example, Laura Randolph, who writes a “Sisterspeak” column for *Ebony,* quoted a University of Arizona study on the differences in body image between black and white female adolescents.
3. **Personal finance**
   A disproportionate number of African-Americans are below the poverty line, and average salaries are lower for this population than the white population. There is a keen interest and need for information on managing money and making the most of limited resources. African-

Americans are also a resource for personal finance information. Many are quite successful at stretching monthly budgets and should be looked to as experts in this matter.

4. **Career opportunities and guidance**
   The October 1995 issue of the *New Orleans Tribune* carried a feature story on assessing whether it is time to look for another job and how to look for another job while holding on to the one you have. These types of stories are critical for today's economy and need to be generated for all types of media, including the black press. Notably missing from black newspapers are examples of careers in agriculture and home economics jobs. Agriculture and home economics colleges at land-grant universities have to overcome a stigma of few career opportunities in these fields, other than farming and homemaking. One way to do this is to feature successful people with rewarding careers who received their education at land-grant universities. Following up with black graduates and disseminating features about their careers and how they reached them will ultimately help with recruitment efforts and enlarge the pool of talented people who are seeking higher education and professional careers.
5. **Family relationships**
   The family and the church play strong roles in the lives of African-Americans. These two institutions similarly play a strong role in the content of black newspapers. These newspapers tend to carry a lot of church news. Many columnists advise seeking God's help and quote scriptures. There is also a heavy concentration on senior citizens news and achievements of school children. The Oct. 23, 1995, issue of the *Chicago Defender* used two press releases from the University of Illinois extension service that had to do with family relationships--adult children and aging parents and the grandparent/grandchild relationship when the grandchildren reach puberty.
6. **Upbeat features about achievers**
   A common mission of all black newspapers is to offer more positive coverage of the African-American community since the preponderance of coverage in the white media is of young black males in handcuffs or black women on welfare. There are many achievers within the ranks of agriculture, natural resources and consumer and family sciences who can be highlighted in informative press releases.

When press releases are sent to these publications, it is imperative that they be in perfect condition and as user-friendly as possible. These publications tend to be understaffed with outdated equipment. Staff at the smaller papers may have no journalistic training. The press releases should contain concise, grammatically correct copy and crisp, active headlines.

In addition to sending press releases and making visits to editors, it is also important to send photographs. These publications tend to use lots of people photos. This is part of their mission to counteract negative images in the mainstream media. Land-grant universities would be helping these publications meet one of their goals by sending them good quality photos that present positive images of African-American people.

Photographs of successful blacks within the agriculture, natural resources, and consumer and family sciences framework also would help spread the word about the value and opportunities inherent with land-grant universities.

In addition to black newspapers, land-grant universities must make contact with the leading black national magazines. The three national magazines most prominent in the black community are *Ebony* , *Jet* and *Essence* . Of these, *Ebony* is the oldest, founded by John Johnson in Chicago in 1945 (Emery, 582). He also founded *Jet,* a magazine that has the smaller dimensions of *TV Guide* and *Reader's Digest*. *Essence,* the black women's magazine, was founded in 1970 (Emery, 582).

The Role of the Black Business

Another way to create a media relations program with the black press is to work through their pocketbook. The black media are dependent on black businesses, who suffer more during economic recession and have a more difficult time obtaining loans and capital than white businesses. Workshops targeted at black businesses sponsored by land-grant universities could serve to strengthen the economic base of the black community. Many of these businesses could afford to spend more money on advertising but they do not understand the worth of supporting black media with advertising dollars.

Black Radio Stations

Black radio stations, like black newspapers, are often overlooked by communications offices at land-grant universities. However, these stations may be quite receptive to using press releases and taped messages from these institutions.

The following is an example of usage by a black radio station in Baton Rouge:
A local bank has a reputation for funding projects aimed at uplifting black youth in the community. I wrote a proposal to this bank to fund a year's worth of radio spots promoting career opportunities in agriculture and home economics at Southern University. The advantages to the community included helping steer more youth to higher education. The bank agreed to pick up the air-time cost at $10,000. I wrote a series of 18 spots. The radio station produced the spots with appropriate sound effects. In addition, selected faculty, students and alumni were featured in some of the spots. The spots have been aired every Monday, Wednesday and Friday morning during a popular call-in program called "Question of the Day." No formal evaluation of the effects has been done so far. However, enrollment in two of the departments featured has doubled within the year.

Creating More Diversity in the White Media

An important aspect of media relations for land-grant universities is to reach the white media with stories of blacks in agriculture and home economics. It is important for both the black community and the white community to see positive coverage of blacks in the white media.

However, I offer this word of caution. When the white media tries to give positive coverage, they should be prepared for a negative reaction. For example, I arranged for three agriculture students from Southern to appear on a local television show called "Live at Five." This half-hour show precedes the regular news show at 6 p.m. with features about the community. The students were part of the format in which one of the hosts does a live five-minute interview. The news angle was that the three students had completed internships at Colorado State University and officials from that school were in Baton Rouge that week to sign agreements formally linking the two universities in an exchange arrangement.

The show's producer had written the questions ahead of time, which were approved by me, the dean and the three students. One of the questions was, What was it like to attend a predominantly white university? The students unanimously considered this a positive experience and quite eloquently described that even though they were among few blacks, they felt comfortable, were accepted and made good friends while there.

After the show, several members of the black community called to complain that the question was racist and should not have been asked. The show's producer and the host were quite upset by the accusatory calls. Fortunately, the producer let me know and I arranged for my boss, the dean, to write a letter of support for the show and the way it was handled.

I suspect I will be able to schedule students or faculty on the show again, when I have a good angle to promote. However, some gatekeepers may use this kind of criticism as an excuse not to cover events in the black community. They may take a paternalistic attitude that minorities should be grateful for any coverage, and if they are not, then they are cut off. The only answer I know to this is persistence.

Conclusion

Land-grant universities cannot afford to overlook any means for getting their message out to communities that wield potential influence over the future of these universities. Working with the black media requires efforts above and beyond working with the mainstream media. It is more than a matter of adding a few publications and radio stations to mailing lists. Also at stake is the relationship of the black community to land-grant universities. Although 1890 universities may have more access to resources needed for reaching the black press, both the 1890 and 1862 universities need to evaluate and probably update their strategies.

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Texas Broadcasters' Use of the Internet

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Introduction

Hundreds of radio and television stations all over the world are using the internet to provide information and communicate with the public. Their use of such elements as e-mail and the World Wide Web (WWW) is changing how university communicators interact with their broadcast contacts. Stations may query for interview experts, e-mail communications specialists seeking broadcast footage, or check university web pages seeking story ideas. Even so, relatively little information exists concerning how broadcasters are using the internet now or how they think they might use it in the future.

This paper will present results of three related studies of Texas broadcasters conducted over the last year: a phone survey of television stations in the top state markets, a review of current television web pages, and a survey mailed to nearly all the radio and television stations in the state. All three efforts sought to gain insight into how the state's broadcasters are using this new technology.

Methodology: Phone Survey

Stations were selected according to whether they fit geographically within certain designated market areas (DMAs) in the 1995 edition of Broadcasting and Cable Yearbook. The survey was limited to Texas' top four television markets: Dallas, DMA No. 8; Houston, No. 11: San Antonio, No. 39; and Austin, No. 65. The four DMAs included 48 stations, and of these 26 had news departments.

The survey focused on the stations that had news components; they were considered the most likely to be interested in the information-gathering techniques available through the internet. They also were the stations believed most likely to be receptive to news and information provided by university communicators. In November 1995, staff members with the Department of Agricultural Communications (DAC) at Texas A&M conducted a telephone survey of the 26 stations with news departments to gauge their use of internet elements. Surveys were successfully completed with 18 stations; at eight others, people were unavailable or chose not to respond.

The surveyors asked for the person at each station who would be most knowledgeable about internet use as it related to their news departments. Respondents included reporters, engineers, news directors, producers and operations managers. The survey instrument consisted of 10 questions, some with multiple parts. Those who did not subscribe to an online service such as America Online or Prodigy were asked five questions.

Results: Phone Survey

Seventy percent of the 18 responding stations subscribe to an online service, with most selecting America Online. Access to these services apparently is shared, although not all stations gave access to all personnel. Most could request information through someone designated to search for it, or use a computer specifically designated to this purpose. However, 36 percent responded that all reporters at their own computers did have online access. One Houston station added, however, that its online access was limited to e-mail, not the use of the World Wide Web. Three more stations indicated that they plan to subscribe to an online service to access the internet within the next two years.

Stations estimated they generate 14 percent of their stories using “at least partial, electronic assistance.” On an average day, they search for or retrieve information 6.6 times each. Stations were asked a series of questions about what aspects of their online service they found most useful. A litmus scale from 1 to 5 was used, with 1 being “least useful” and 5 being “most useful.” “Statistics and background searches” received the highest rating with 3.5. “Data-base manipulation” ranked second with an even 3. These and other responses are included in the chart below:

Online Services Rated According to their Usefulness

Online information use	**Rating**
Statistics and background searches	3.50
Database retrieval	3.00
Releases from govt information or public relations offices	2.58
Stories filed by reporters away on assignment	2.58
Newsfeed information	2.50
Queries for interviews with sources	2.09
Supplemental news services	1.75

Respondents were given the opportunity to offer comments about other services they use. One cited travel scheduling.

Stations were then asked to tell whether they preferred to receive certain kinds of news materials electronically via the computer, or by traditional methods such as regular mail or hand delivery. Responses are included in the chart below:

Preferences for Receiving News via Computer v. Traditional Means

Type of Information	**Computer**	**Traditional**
Releases from government information offices	65%	35%
Releases from public relations offices	65%	35%
News items from other local sources	71%	29%
Texas Assn. of Broadcasters and other professional news	71%	29%

One respondent said that he would prefer to receive, “everything I can by computer, because it saves time.” Another expressed the opposite opinion, citing the large volume of information already received via computer, and his station's inability to put someone on the job of reviewing it full time.

Station representatives also were asked to react to a list of reasons why they may not have full, electronic capabilities in the newsroom and indicate how important those reasons were. Again, a litmus scale of 1 to 5 was used, with 1 being "strongly disagree" and 5 being "strongly agree." The highest rated response was "cost," averaging at 3.46. "Too much information to process" followed with a rating of 3.06. Other responses are included in the chart below:

Reasons for Not Fully Incorporating Electronic Capabilities in Newsroom

Reason	**Rating**
Cost	3.46
Too much information to process	3.06
Lack of support staff or training	2.93
Have not had time for installation	2.86
Reporters will waste time online	2.66
Management does not see benefits	2.66
Information is never received	2.66
Information has to be sorted and delivered	2.53
Lack of interest	2.18
Stories come in garbled	2.00

(Rating is an average based on responses on scale of 1 to 5, with 1 being "strongly disagree" and 5, "strongly agree")

Station respondents were given the opportunity to offer other reasons why they may not have the full range of online capabilities in their newsrooms. Two cited security concerns, and one said the station is not set up technically to use an online system. Two cited differences in training needs between those raised in the "computer generation" and those who are uncomfortable with using the devices. One station's representative commented, "We have enough trouble training people to use the inhouse system, but I think that's going to change as more young people come in."

Those surveyed were asked to respond "yes" or "no" to a list of computer uses that applied to their stations. The highest number of positive responses related to using electronic mail. All who answered the question claimed they use either internal or external e-mail. "Online information research" and "provide a World Wide Web page" received the next highest "yes" responses with 81 percent each. High numbers of positive answers also were given for these uses: "database manipulation," 77 percent; "to receive information about newsfeeds," 75 percent; and "to correspond with other stations about industry issues," 50 percent. Less than half (44 percent), however, said they used station computers to "receive news releases." One Houston station reported plans to receive news releases in this manner in the near future.

Although not all stations use online technology, most agreed that use of this technology will increase in the next five years. On a litmus scale ranging from 1, “greatly decrease,” to 5, “greatly increase,” stations rated this answer as 4.31.

Methodology: Web Page Study

As noted earlier, 81 percent of the 18 stations responding to the telephone survey reported offering at least one page to the World Wide Web. To determine their current use of the “web,” an informal survey was conducted via the internet. The web browser software Netscape was used, and InfoSeek and WebCrawler were the search mechanisms applied. The search was conducted using both call letters and network names as keywords. Once again, only stations included in the top four Texas markets were surveyed.

Results: Web Page Study

Of these 48 stations, 16 (33 percent) have a web page available as of this writing. The breakdown is as follows:

TV Station Websites in the State’s Top Four Markets

City	TV Stations	Stations with Websites
Dallas	16	4 (25%)
Houston	15	6 (40%)
San Antonio	11	3 (27%)
Austin	6	3 (50%)

Most home pages appeared to have been created by the stations themselves or by a service that created similarly designed pages for sister stations. Most offer links to various information about their programming, personnel, job opportunities, and links to sites of potential interest to viewers. Stations that did not have individual websites but merely provided text information created by the service “TV Net” were not included in this count.

According to the stations’ pages, at least two Texas stations claim rights to “firsts” with regard to the internet: KUHT, the public television station in Houston, boasts that it is the first broadcasting station in the world to have a page on the World Wide Web. In Dallas/Fort Worth, KXAS’s pages state that it is the first commercial television station in Texas to have a page on the World Wide Web, and that the station first got involved with interactive television when it invited viewers to send in e-mail on election night, Nov. 8, 1994. Viewers were given the chance to ask questions of candidates, anchors, reporters, and a political analyst.

But stations apparently see the WWW primarily as an opportunity to reach their viewers with programming information and as a means for viewers to reach their staffs directly. Of the 16 stations with web pages available, 88 percent included programming information. Some stations offered complete program schedules with links to each day and date, others simply linked themselves to their network program pages. A few stations offered summaries of program listings, similar to those found in *TV Guide*.

Seventy-five percent of stations provided links to send viewer feedback directly to the station regarding programming. Perhaps the best developed viewer feedback page is currently that of KEYE in Austin, which allows viewers to select to send comments to “news,” “sales,” or “stories.”

Fifty percent also offered either personnel directories or files with biographies of on-camera staff members. Thirteen percent have such a link available, with no data available yet. At least two stations provide direct e-mail links for viewers to write to their news anchors. The most elaborate staff directory was that of the Houston public television station, which included its entire staff, including direct e-mail links where available.

As far as news content is concerned, 25 percent of the stations with web pages offer summaries of their top stories of the day. All of these stations are under the same ownership. The only other station to offer information on news program content provides a brief summary of its regular news features.

At least five stations offered weather pages. Three were linked directly with National Weather Service forecast pages, and one is linked to The Weather Channel.

Many stations offer links to additional non-television related sites. The most popular is the page providing updates on winning Texas lottery numbers, although a few stations also included the Dallas Cowboys’ home page and the Dallas Police Department home page. Other sites include the 1996 Summer Olympics, television network links, a station promotion/contest, USA Today Online, and “O.J. Simpson Central.”

These pages, as stations develop them further, may have greater use to public information specialists seeking background on station personnel, news programming, and public service offerings. If the information currently available is indicative of the future, the need to purchase expensive directories or make frequent calls for personnel updates may diminish. And public information officers looking to pitch material may easily search out the station’s programming niche in which the story might fit. One station’s website already includes its policy on running preproduced public service announcements.

Methodology: Mail Survey

DAC teamed with the Texas Association of Broadcasters to mail a three-page questionnaire to over 700 Texas radio and television stations in the spring of 1995. The survey was addressed to the general managers or news directors of these stations.

Respondents were asked 15 questions about how they are using the internet, who has access to this medium in their newsrooms, and how they anticipate using the internet in the future.

Questionnaires were sent to the 712 members of the Texas Association of Broadcasters in mid-April

1995. A cover letter explained that the survey was intended to gauge their present and future use of the internet for news and information gathering, among other uses. Few stations responded, perhaps because the survey was sent out at a time when station managers were busy planning their programming for a ratings measurement. A second mailing and followup phone calls were made only to the television stations in late May, since the initial survey response from radio stations was so limited, possibly indicating that the level of activity or interest among radio broadcasters in this field was not as high as first thought.

Results: Mail Survey

Seventy-five of 712 broadcasters responded to the survey, for a return rate of 10.1 percent. Thirty-one represented television stations and accounted for 22 percent of the 144 television stations in Texas. The other 44 responses were from radio stations, which represented 6 percent of the 729 radio stations in Texas.

The limited response to this mail survey makes it difficult to draw general conclusions about either segment of the broadcast industry in Texas. Even so, given the paucity of information that exists on this topic, the findings reported here should offer some useful clues and insights about the attitudes of some Texas broadcasters concerning this new technology.

Of the 30 television executives responding to the question, nine (or 29 percent) say their stations subscribe to an online service, the most common way to gain access to the internet. (Five reported their provider as America Online, and four reported using Compuserve.)

Nine more are making plans to go online: four will sign up within six months, three within a year and two within two years. Another 10, however, reported having no plans to subscribe.

Among the 43 respondents from radio stations, 10 (or 23 percent) already subscribe to an online service. Thirteen more radio stations plan to subscribe to a service within the next two years, but 15 others (44 percent) have no plans to go online.

This result generally tracks a finding in a similar survey of Texas daily and weekly newspapers conducted by DAC in 1994. Generally, the largest dailies were the ones most likely to be already using or planning to use online services, and the ones least likely were the small dailies and small weeklies, those with the least resources.

Even among broadcasters with online services, access tends to be quite limited, indicating perhaps that many news operations are moving gingerly into this area. Of the nine television stations that are online, for example, six indicated that only one person has access to online information in their newsrooms, two said that clusters of reporters can access online data, and one reported having online access to reporters at their individual computers.

It comes as no surprise, then, that both groups surveyed rated the newsroom usefulness of online services low. Respondents were asked to rate the usefulness of four sources of information: newspapers, satellites, wire services and online services. They were asked to choose a number on a scale of 1 to 5, with 1 representing "least useful" and 5, "most useful."

Based on rating averages, television executives gave the highest usefulness ratings to wire services (at 4.30) and satellite sources (3.91), while online services rated lowest at 2.44. Radio broadcasters saw things much the same way, giving highest ratings to satellites (3.97) and wire services (3.67), and lowest to online services (2.35).

Ratings of Sources of Information According to News Usefulness

Information source	Television Respondents	Radio Respondents
Newspaper	3.39	3.32
Satellite	3.91	3.97
Wire Service	4.30	3.67
Online Service	2.44	2.35

(Ratings are averages based on responses ranging from 1 to 5, with 1 as "least useful" and 5, "most useful.")

Both groups of broadcasters, however, see the use of online technology greatly increasing in their newsrooms over the next five years. Choosing from a list of possibilities, both agreed most strongly that on a scale of 1 to 5, their news staffs' capabilities would greatly increase in the use of electronic mail and in the gathering of background for stories through online information searches.

Television executives surveyed gave the same high rating (3.90) to increased staff capabilities to retrieve and manipulate databases over the next five years. Radio respondents meanwhile, with a high rating of 3.88, thought the capabilities of their staffs to receive direct electronic transfers from news sources would increase greatly by the year 2000.

Responding to a list of possible advantages of computer-assisted reporting, both groups gave highest ratings on a scale of 1 to 5 to "speed in gathering information." Television stations surveyed also gave high ratings to the advantages of electronic reporting in tracking story developments (4.05) and conducting investigative news projects (4.05). Radio executives most liked the advantages of storing scripts from previous telecasts (4.00) and staying current with the news industry (3.90).

Even now, both groups say they want more information delivered to the newsrooms electronically instead of by such traditional methods as mail or hand delivery. Among broadcasters responding, the preferences expressed for electronic delivery were these: news items from local sources, 76 percent; releases from government information offices, 66 percent; releases from public relations offices, 60 percent; and death notices from funeral homes, 58 percent.

Why aren't more broadcasters already online? The reasons that received the most emphasis from respondents to the mail survey were two: cost and lack of training. This result was identical to the findings in the DAC survey of Texas newspapers in 1994. It also showed up in the telephone survey of the 26 news-oriented television stations in the state's four largest markets.

Conclusion

All three of these surveys offer evidence that broadcasters in Texas are moving rapidly to explore the opportunities offered by new computer-based information and news-gathering capabilities. The telephone survey of television stations with news capabilities in the state's four largest markets indicates a majority already have internet access. A handful of these stations already make it possible for all of their reporters to go online from individual computer terminals. Certainly many television stations in the largest Texas markets are moving quickly to build their own websites. At least 16 exist now, where very few had a presence two years ago. The survey of those sites indicated that most of the webs are being used to communicate directly with the public by offering program listing information and in some cases news updates. The mail survey of both television and radio executives, while limited by a low response rate, also suggested that these managers see real advantages in the electronic gathering and transmission of news and information. Although cost and lack of training seem to be mitigating factors, most respondents agreed that use of this technology will greatly increase over the next five years.

Public information officers seeking to keep their products in sync with the needs of the broadcast industry can find ample evidence from these studies that the use of the information superhighway by Texas broadcast professionals will only increase. Broadcasters do not have high use of this technology now, but they anticipate heading that direction in the future, and many will be rapidly doing so. During this transition period, agricultural communicators would be wise to look to more electronic approaches to serving these clients -- linkages to web pages and increased use of e-mail to convey information about stories and news feeds, to cite but a couple of examples. By understanding how rapidly broadcasters are gearing up for the information superhighway, communications specialists will be able to better judge how to best deliver their products to them.

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Butterflies and (Shutter) Bugs: Attracting the Public to a Scientific Meeting

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"The only good bug is a dead bug."

To change this all-too-common way of thinking and increase public awareness of how important insects are in our daily lives, the Entomological Society of America (ESA) added a new twist to a regional meeting.

The ESA used butterflies and nature photography to draw non-scientific groups to four public programs during its North Central Branch meeting in Lexington in March 1995. These "public events" were an insect photography workshop, butterfly gardening program, slide show of a national photography contest, and talk on the monarch butterfly. They were scheduled on a Sunday afternoon and a week night to make it more convenient for people to attend.

During the photography workshop, six speakers discussed specialized areas of nature photography, including camera capabilities and close-up techniques.

Next, Kathy Wildman, who designed a butterfly garden for AmeriFlora '92 in Columbus, Ohio, gave tips on using plants as food sources and hosts to attract butterflies.

The slide show featured winners of a Photographic Society of America juried insect photography contest.

Dr. Lincoln Brower, a world authority on the monarch butterfly, discussed these beautiful insects' migration and the effects of deforestation and development on their overwintering sites.

This first attempt to lure "the public" to an ESA regional meeting drew nearly 500 people.

Haven Miller, electronic media specialist, and I developed a promotional plan for the meeting. We emphasized the "public events," and used a mix of external and internal vehicles to deliver our messages. Externally, we used news releases, newsletters, radio tapes, the College of Agriculture's public gopher and closed-caption electronic delivery system, flyers, and word of mouth. Internally, we employed the College of Agriculture's electronic mail system and internal gopher, flyers, and word of mouth.

I wrote four news releases for a weekly News Service that goes to about 500 print and electronic media. The releases also are posted on the College of Agriculture's public gopher and its closed-caption electronic delivery system.

Two metropolitan dailies published news stories about the ESA "public events." *The Herald-Leader* in Lexington carried advance and follow-up articles in a tabloid-size insert. *The Courier-Journal* in Louisville published an article on the front of its gardening section.

Since we have no clipping service, I don't know how extensively the releases were used in other newspapers.

I also wrote a synopsis of the public events for newsletters. It generated stories in 4-H, Extension horticultural, nature sanctuary, and photographic society newsletters.

Haven wrote a broadcast-style release for area radio and tv stations and a statewide radio network; suggested "visual" portions of the meeting; listed contact people to interview; and made media calls to area electronic media.

We received excellent coverage on radio gardening shows in Louisville and Lexington. The University of Kentucky public radio and a Lexington AM station also carried news stories. However, we were disappointed in the television coverage. To our knowledge, no station carried news stories. One Lexington station sent a cameraman to the butterfly gardening program; but he couldn't get useable footage because the speaker was already showing slides.

In hindsight, I should have learned more about each program format and notified tv stations so they could plan coverage accordingly.

It is also possible that assignment editors thought the meeting was unsuitable for television because the programs did not have "highly visual" content. Perhaps editors thought coverage would require too much time and effort for the end result.

In other external promotions, university entomologists posted flyers at an arboretum, a nature sanctuary, photography, nature and garden supply stores, and buildings on campus. They also sent flyers to biology departments at regional colleges and universities.

Word-of-mouth was a valuable promotional tool within the university and gardening and photography groups. We worked with state 4-H specialists to share the value of these programs with 4-H members and county Extension agents for 4-H/Youth Development. Communications within gardening and photography groups also attracted many people to the "public events."

Internally, we put flyers in university buildings and posted a synopsis of the "public events" on the College of Agriculture's electronic mail system. Every state Extension specialist and county Extension office can access this E-mail system.

To find out how many people attended each "public event," and their sources of information, I distributed a survey at each session.

Dr. Brower's monarch butterfly program was the most popular event, drawing 170 people. The butterfly gardening program was a close second with 155 people; followed by the insect photography workshop, 81 people; and the photo contest slide show, 60 people.

Overall, newspapers were the most popular source of information. An average 61% of the people attending the "public events" listed a newspaper as one information source. The ESA program was next with 28% citing it as a source of information.

Other information sources were word-of-mouth, 26%; radio, 13%; flyers, 12%; newsletters, 11%; and electronic mail, 4%.

One interesting discovery was that quite a few people listed more than one information source, especially those at the butterfly gardening program and insect photography workshop.

Twenty-three people attending the butterfly gardening program used more than one information source. Where two sources were listed, newspaper-radio was the most often used. Newspaper-newsletter and newspaper-word of mouth also were used frequently. Other two-source combinations were newspaper-newsletter-radio and newspaper-newsletter-word of mouth. When three sources were listed, newspaper-newsletter were used with radio or word-of-mouth.

Twenty people at the insect photography workshop used more than one source. Newspaper-word of mouth was the most common listing of two sources. Newspaper or newsletter was used in most other two-source mixtures. Where three sources were used, newspaper, newsletter or word of mouth were used most frequently

For the slide show, six people used more than one source of information, primarily newsletter-word of mouth. Word of mouth also was used with print materials, such as flyers and newspaper.

Four people at the monarch butterfly program used more than one source of information, generally newspaper-word of mouth.

The following is a synopsis of sources of information for each public event.

Insect Photography Workshop

Of 81 people attending the insect photography workshop, newspaper was a source of information for 67%; word of mouth, 33%; flyer, 18%; newsletter, 13%; radio or ESA program, 11% each; and electronic mail, 4%.

Butterfly Gardening

Sources of information for 155 people at the butterfly gardening program were newspaper, 82%; word of mouth, 24%; radio, 15%; newsletter, 8%; and flyer, 7%.

Photo Contest Slide Show

For 60 people visiting the photography contest slide show, information sources were newspaper, 68%; word of mouth, 31%; and ESA program, flyers, and newsletters, 11% each.

Monarch Butterfly

Information sources for 170 people at the monarch butterfly talk were ESA program, 62%; newspaper, 26%; and word of mouth, 15%.

Several factors made our job easier and contributed to a successful promotional effort.

First, the meeting promotion committee met with us nearly two months in advance and provided comprehensive information and contact people for the "public events." This early notification gave us time to develop promotional materials and work with contacts in the news media.

Second, we used a variety of internal and external vehicles to deliver messages about these programs. Survey results revealed that many people used more than one source of information, indicating that this multiple-vehicle approach was successful.

Third, we had personal contact with newspaper gardening editors and hosts of radio gardening shows. We contacted gardening editors and the radio garden show hosts in Lexington and Louisville. Overall, 61% of the people learned about the programs from newspapers; 13% from the radio.

Lastly, many people have gardening and photography hobbies.

A 1992 Gallup survey of 210,000 subscribers to National Gardening magazine indicated that people spend a lot of money and time on gardening. Results showed that subscribers spent more than $75 million annually on flower and food gardening. They devote four hours a week to flower gardening and more than seven hours per week to food gardening during the growing season. Subscribers spent more than $167 million on mail order and retail garden products.

Photography also is a popular activity in U.S. households, according to a 1994 survey by Photo Marketing Association International. This survey revealed that nearly 55 percent of U.S. households purchased or processed film during an average quarter.

If you want to attract the public to a scientific meeting, we recommend that you start the promotional effort early. We began in late January for a meeting scheduled for late March.

Also use a variety of vehicles to deliver your message, emphasizing those that reach your target audiences. We used mass media, as well as specialized means such as newsletters and flyers, to reach audiences interested in gardening, photography and nature topics. Over the years, we've developed a good working relationship with area news media. We believe this relationship, and the fact that the information was newsworthy, helped generate coverage that enticed people to attend the four "public events."

Of course, it helped to have four programs that interested many people in the area.

A Scheme for Improving Questionnaire Response Rates

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Summary

This paper explains a strategy used in an early 1995 survey of U.S. Higher Education Coordinating Boards and the resulting response rate. In an effort to assess the impact of existing state coordinating board policies on the use of telecommunications for delivering distance education opportunities, a questionnaire was forwarded to the executive officers of state coordinating boards in the 50 states and the District of Columbia as identified by the State Higher Education Executive Officers (SHEEO) organization's membership listing. Relatively conventional strategies were used to further encourage and/or remind nonrespondents following the initial contact. In addition, emerging communications technologies and organizations were employed in the strategy to encourage participa tion by each SHEEO member. The response rate reached 96.07 percent. This paper reviews techniques proposed by recognized authorities, describes the strategic modifications used in the 1995 study, and reports results. Some data is presented in tabular form in a format similar to that proposed by Fink and Kosecoff (1985, p. 78).

Introduction

The development of television technology, especially the ability to transmit signals via satellite, cable, and fiber optic lines, has greatly enhanced and expanded the capability for delivery of postsecondary education and extension courses via electronic means (Brown and Thornton, 1963; Levenson and Stasheff, 1958; Naisbitt, 1984.) These media include but are not limited to: two-way, talk-back television; satellite delivery of courses to business, industry, and educational institutions; and the use of compressed video (Verduin and Clark, 1991). Recent mergers of telephone and cable companies further open windows of opportunity for adaptation of communication technologies to deliver information and education to all who seek access (Hezel Associates, 1993; 1994). Investments in communications technology on the part of colleges and universities may be the key to institutional survival in the next century (Chaleux, 1985; Hezel, 1990; 1991). Nationally, level or reduced state funding for postsecondary education has generated interest in examining the use of telecommunications technology to deliver quality higher education programs and services at a lower cost (Baird and Monson, 1992). Issues associated with the regulation of both communications and education need to be addressed as soon as they arise if the evolution of higher education is to keep pace with the revolutionary changes in communications technology (Kahin, 1994). In relating public policy to the meaning of educational change, Floyd (1982) believes the ultimate effect of higher education policies directing the use of emerging technologies for distance education should be "maintaining the quality of educational services and providing access to all students who might benefit" (p. 39). Fullan and Stiegelbauer (1991) argue that "strong commitment to a particular change may be a barrier to setting up an effective process of change" (p. 95); that those who wish to see a change implemented need to be as skilled in the change process as they are in the proposed change.

These authors demonstrate a need to associate any proposed change with specific goals and objectives and contend that solutions result from shared meaning: "The interface between individual and collective meaning and action in everyday situations is where change stands or falls" (p. 5).

Statement of the Problem

The availability of communications and computer technologies has expanded dramatically throughout the world since the 1950s and currently offers unlimited potential for institutions of higher education to deliver credit and noncredit instruction and information to any part of the world (Naisbitt, 1984). Yet, the delivery of postsecondary education via telecommunications technology is extremely limited in the United States and is more common in cooperative extension work and professional training for adult learners (Baird and Monson, 1992). Another factor limiting the actual use of telecommunications for delivery of postsecondary education is the existence of policies that may discourage colleges and universities from using these technologies. For public institutions of higher education, which are bound by rules and regulations for delivery of postsecondary educational courses, a lag between the availability of technology and its appropriate use is accentuated by state policies that either promote or inhibit deployment (Eure, Goldstein, Gray, and Salomon, 1993). Verduin and Clark (1991) speculate that this anomaly exists because of "American educators' lack of awareness about just what distant education is, how it operates, and what it can do for adult learning" (p. xi). Fullan and Stiegelbauer (1991) would attribute the time lag between the availability of emerging technologies and their application to needs in higher education to the complexity of the change process. They contend that "educational change is technically simple and socially complex" (p. 65). To better understand this complexity, they posit several assumptions about change; among them are the assumptions that change will take time and "that any significant innovation, if it is to result in change, requires individual implementers to work out their own meaning" (p. 106). In higher education, that meaning is often defined through policy.

Purpose and Scope of the Study

The purpose of the research is to describe the distance education policies and regulations now in place at the state level throughout the United States, and to describe perspectives of the state coordinating board leadership regarding the meaning of these policies to telecommunications-related issues and opportunities facing postsecondary education. Specifically, this descriptive research (Gay, 1992) illuminates perceptions of meaning associated with distance education policy in higher education within the context of Fullan and Stiegelbauer's *Meaning of Educational Change* (1991). This study brings focus to the role of coordinating boards in the design, implementation, and coordination of policy which is intended to bring meaning to change. State higher education executive officers throughout the United States and the District of Columbia were surveyed in conducting this assessment of the distance education policies and regulations now in place at the state level throughout the United States. The study was undertaken to gain insight into the perspectives of the educational leadership regarding the relevance of these policies to telecommunications-related issues and opportunities facing postsecondary education. This paper describes the research design through which the study was conducted. The presentation is as follows: (1) definition and selection of population, (2) research instruments, and (3) the procedures used in data collection and analysis.

Definition and Selection of Population

Due to the focused scope of this study, the total population of state higher education executive officers throughout the United States and District of Columbia was included. The population was defined by the then current (January 1995) listing of these officials as provided by the State Higher Education Executive Officers (SHEEO) organization. Forty-nine states, the District of Columbia, and Puerto Rico were members of SHEEO in January 1995. Wyoming is not a member of SHEEO because there is only one four-year institution within that state's geographic boundary. Because of the effort to obtain data from each state, the Community College Commission in Cheyenne, Wyoming was added to the population. Puerto Rico was not included in the population. In states where more than one individual was listed on the SHEEO mailing list, the first listing was selected solely on the basis of alphabetical prominence.

Research Instruments

Two separate instruments were used in this study: (1) a printed questionnaire distributed to the SHEEO members through FedEx, and (2) a follow-up questionnaire used in telephone interviews with the nonrespondents.

Questionnaire

The questionnaire was developed according to guidelines presented in Bradburn and Sudman (1988), Dillman (1978), and Fowler (1984). Considerable thought was given to the nature of mail questionnaires in regard to "openended" questions. Fowler states without hesitation that "self administered questionnaires should be limited to closed answers" (1984, p. 103). Dillman cautions:

> The absence of an interviewer puts the mail questionnaire at a very distinct disadvantage. Not only do some people find it more difficult to express themselves in writing than orally, but the absence of the interviewer's probes frequently results in answers that cannot be interpreted and sometimes in no answer at all. The difficulty of open-ended questions and the near impossibility of solving it represents one of the most severe shortcomings of mail questionnaires (p. 58).

Bradburn and Sudman (1988) assert that "Mail questionnaires can be effectively used with respondents who have experience in dealing with written materials and above-average motivation to participate in the surveys" (p. 103). These authors consider the principal problem in the design of mail questionnaires to be making questions unambiguous, so respondents do not need to puzzle over a question's meaning. Assumptions which need to be noted here are that the population contacted for this study consists of individuals: (1) who are experienced with written materials, (2) can express themselves in the written word as well as orally, and (3) have high motivation to participate in a survey dealing with the topic at hand.

Development

Ultimately, the questionnaire was designed with both open and closed questions. Questions focused on sources of innovation, the meaning of change, and factors affecting implementation and continuation of delivering postsecondary education via telecommunications. A draft copy of the questionnaire was then sent to nine reviewers in six states who are knowledgeable about and interested in distance education at the postsecondary level. The panel consisted of two academic deans, two directors of continuing or extension education, two professors currently serving as coordinators of distance education at their respective land-grant universities, the academic vice president of a major distance education consortium, a professor of statistics, and a professor of education. All but one of the panel members responded. Each had recommendations for improving the instrument; none suggested eliminating the open-ended questions. Once the questionnaire was rewritten to reflect the panel's recommendations, the data collection procedure began.

Data Collection Procedure

The strategy employed for encouraging response is a minor modification of Fowler's (1984) scheme for reducing nonresponse to mail surveys through repeated contact (p. 54) and is presented in Table 1. Nine days after the initial mailing, a post card was sent to nonrespondents. The message on the card reminded the recipient that a questionnaire had been sent on January 16, that a FedEx PAK had been provided for expense-free return of the questionnaire and related documents, and that we placed high value on a response from each state. The investigator's return address, phone number, and FAX number were included to make it easy for recipients to make contact in the event they had not received the material, had misplaced it, or had questions about the survey. One week later (February 1, 1995), a personalized letter of endorsement for the study was sent to each nonrespondent from Dr. Hans Brisch, Chancellor of the Oklahoma State Regents for Higher Education, on official stationery from his office. Dr. Brisch's letter spoke of the potential value of the data and noted that such value increases with the response rate.

Ten days later, the date participants were initially asked to return the questionnaire and related documents, another mailing was prepared for nonrespondents which included a letter advising the recipient of the importance of each state's participation, but also restating that participation was voluntary. This mailing, which was sent via the U. S. Postal Service in a green-and-white envelope, included another copy of the questionnaire--with the deadline date changed (in red ink) to February 24, 1994--and a return envelope with two First Class postage stamps affixed. The response rate reached 78.4 percent prior to implementation of the telephone follow-up on March 6, 1995 , increased to 92.15 percent by March 14, 1995 (the announced final deadline), and to 96.07 percent by mid-summer (Table 1).

Table 1. A Scheme for Reducing Nonresponse

		Cumulative Response Rate to Date	
Date	**Activity**	**N = 51**	**Percentage**
January 16, 1995	Cover Letter, Questionnaire, PAK for Return sent via FedEx	--	--
January 25, 1995	Post Card Reminder Sent via U.S. Mail	12	23.5

February 1, 1995	Chancellor's Endorsement Sent via U.S. Mail	21	41.2
February 11, 1995	Second Letter and Additional Copy of Questionnaire Sent via U.S. Mail	31	60.78
March 6, 1995	Telephone Follow-up and Interview	40	78.4
March 14, 1995	Announced "Final" Deadline	47	92.15
August 1, 1995	Receipt of Final Response	49	96.07

This response rate should be considered better than average, based on Fowler's (1984) observations:

> The difficulties of getting the response rate to a reasonable level will depend on the nature of the sample, the nature of the study, how motivated people are, and how easy the task is for them. Clearly, the task will be easier if the sample is composed of motivated, well-educated individuals. However, Dillman has obtained response rates over 70 percent with general population samples, using only mail procedures (Dillman et al., 1974). Hochstim (1967) obtained response rates over 80 percent with telephone and personal follow ups. If the researcher will be persistent, and if it is a reasonably well conceived and well-designed study, acceptable response rates can be obtained by mail. (p. 55)

Several attempts were made to attract the recipient's attention and to imply urgency through the initial mailing. All communications were personalized for each recipient. The initial letter and questionnaire were sent by FedEx to arrive on January 17, 1995. The cover letter was prepared on stationery from the Office of Academic Programs, College of Agricultural Sciences and Natural Resources, Oklahoma State University. The questionnaire was printed on colored paper to help keep it more visible on the recipient's desk and a FedEx PAK was included with the first mailing to help facilitate the respondents' return of all documents at no expense to their respective offices.

Bradburn and Sudman (1988) recommend a well-written cover letter, multiple mailings, and "a small monetary gift, usually a dollar" (p. 104) to increase motivation to respond. The only "gift" offered participants in exchange for completing and returning the questionnaire was a copy of the summary information at the conclusion of the study (Appendix B).

The post card reminder, mailed on January 25, 1995, provided another opportunity to attract attention because postage rates had just increased, necessitating the addition of a colorful one-cent stamp to the already colorful U.S. Postal Service card. Both the message and mailing surface were imprinted directly on each card using a desk-top laser printer.

After reviewing information on constructing telephone questionnaires (Dillman, 1978), the instrument used for the mail survey was adapted for telephone use. Eleven nonrespondents were identified following the final mail delivery on March 3, 1995 (one week after the "adjusted" deadline of February 24, 1994), and the telephone contact began the following Monday, March 6, 1995.

Respondents

Responses from 48 states plus the District of Columbia were received. The states represented by the respondents are geographically diverse, including both continental and non-contiguous representation (Table 2). States not responding are Iowa and Maine. The 49 respondents provided 46 completed questionnaires and one completed telephone interview; two of the respondents returned the questionnaires without completing them.

As of March 6, 1995, 40 responses had been received (Table 1, page 41). Offices of the 11 nonrespondents were then contacted by telephone. Three individuals indicated work on the questionnaire was still in progress and that the questionnaire would be returned; six offices promised a return call; one individual indicated she had put the questionnaire in the mail on March 3, 1995; and one consented to a telephone interview after stating he did not intend to complete the questionnaire. Ultimately, the telephone follow-up effort resulted in an overall response rate of 96.07 percent. The coordinating boards participating in the study and their modes of response are identified in Table 2.

Table 2. Coordinating Boards Participating in Study

Location	Response Mode	Questionnaire Returned By	Additional Documents Provided
Alabama	U.S. Mail	Delegate	No
Alaska	Telephone	Addressee	No
Arizona	FedEx	Delegate	Yes
Arkansas	FedEx	Delegate	No
California	FAX	Delegate	No
Colorado	FedEx	Delegate	Yes
Connecticut	U.S. Mail	Addressee	No
Delaware	FedEx	Addressee	No
District of Columbia	FedEx	Addressee	No
Florida	FedEx	Delegate	Yes
Georgia	FedEx	Delegate	
Hawaii	FedEx	Delegate	Yes
Idaho	U.S. Mail	Addressee	Yes
Illinois	FedEx	Delegate	Yes
Indiana	U.S. Mail	Delegate	Yes

Kansas	FedEx	Delegate	No
Kentucky	FedEx	Delegate	Yes
Louisiana	FedEx	Delegate	Yes
Maryland	FedEx	Delegate	Yes
Massachusetts	FedEx	Delegate	No
Michigan	FedEx	Delegate	Yes
Minnesota	FedEx	Delegate	Yes
Mississippi	FedEx	Delegate	Yes
Missouri	FedEx	Delegate	Yes
Montana	FedEx	Delegate	Yes
Nebraska	FedEx	Delegate	Yes
Nevada	FedEx	Delegate	Yes
New Hampshire	FedEx	Delegate	No
New Jersey	FedEx	Delegate	No
New Mexico	FedEx	Delegate	Yes
New York	FedEx	Delegate	Yes
North Carolina	FedEx	Delegate	No
North Dakota	FedEx	Delegate	No
Ohio	FedEx	Delegate	No
Oklahoma	FedEx	Delegate	Yes
Oregon	FedEx	Delegate	Yes
Pennsylvania	FedEx	Delegate	No
Rhode Island	FedEx	Delegate	No
South Carolina	U.S. Mail	Delegate	Yes
South Dakota	FedEx	Addressee	Yes
Tennessee	U.S. Mail	Delegate	No
Texas	FedEx	Delegate	Yes
Utah	FedEx	Delegate	Yes
Vermont	U.S. Mail	Delegate	No
Virginia	FedEx	Delegate	Yes
Washington	FedEx	Delegate	No
West Virginia	FedEx	Delegate	Yes
Wisconsin	FedEx	Delegate	No

Wyoming	FedEx	Delegate	No

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Improving the Effectiveness of Educational Programs on the World Wide Web

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Abstract

> The potential value of the World Wide Web for distance education and staff development is becoming widely recognized, and communicators in land-grant universities are being called upon to develop materials for Webbased educational efforts. While the interactive multimedia capabilities of the Web offer strong advantages over conventional printed materials, most current usage taps only a small fraction of the Web's potential for helping adult users at remote locations develop new knowledge, skills, and attitudes. This paper explores how basic principles of adult education and an understanding of adult learners can be applied to more fully exploit the capabilities of the Web and other multimedia tools for delivering self-paced, interactive educational programs.

The Internet, for years a little-known data-exchange tool of the military-industrial complex and the major research universities, has become in the past few years a household word. Previously computer-phobic or computer-apathetic citizens are laying down their credit cards on the counters of discount electronics stores to buy multimedia desktop computer systems far more powerful than the banks of computers used to put the first man on the moon. Manufacturers are poised to introduce "Internet Appliances," dedicated, simple-to-operate systems that will allow homeowners plug-and-play access to the Internet's many features. What has spurred all this sudden interest? It's the World Wide Web, of course, that alluring, interactive, multimedia "front end" or graphical user interface to the Web that allows point and click access to this immense international computer network and its massive distributed resources.

For once, university communicators were not at the end of the line in gaining access to a totally new communications medium. When television became widely popular in the 1950s, for example, the only practical access to this powerful new medium was through commercial broadcast stations, primarily because they owned the very expensive equipment necessary and they held the necessary broadcasting licenses. Video cameras and recorders, let alone transmitters and antenna towers, were far too expensive and complex for agricultural communication units to purchase and operate. Communicators in land-grant institutions therefore began to work with their local stations to develop educational programming. The opposite is true for the World Wide Web. Universities typically have had the best capabilities to establish what is now called a "presence" on the Web, and commercial users are hastening to catch up. Access is not really an issue; for a fairly modest sum of money, a person or organization can obtain an Internet connection, set up a server, and establish a presence -- in essence, become a "broadcaster" on the Web.

We are only beginning to grasp the value of the Web as a resource for education. It can provide interactive access to millions of potential learners around the globe. And though it seemed just a few years ago to be restricted to the well-educated and the computer geeks, it is becoming the media of choice for the masses. By the end of 1995, 40 percent of America's 100 million homes will have a personal computer. Internet connections are increasing by almost unbelievable numbers every month.

As agricultural communicators, however, we are not well prepared to take advantage of this unexpected gold mine of communications opportunity. Many of our early efforts on the Web have consisted of what could be called information dumping. We have simply converted existing paper-based documents to electronic form through HTML coding or some proprietary coding scheme and have mounted them on a Web server. I do not mean to belittle this effort; it is astonishing to me how much valuable, practical information has appeared on Web servers over the last two years. It is important to realize, however, that providing information is not educating. Information is a critical tool in the educational process, but it alone will not bring about desired educational outcomes. As we will discuss later, education is the process of bringing about a change in the learner's knowledge, skills, or attitude -- or a combination of all three. Most of us and our units are not well prepared to take advantage of the Web's educational potential for two reasons. First, in most of our units we are still divided by medium. Print people -- writers and editors -- whose product is the placing of meaningful marks on paper, have worked largely separate from radio and television people. True, a writer might be called upon from time to time to produce a video or radio script, but often our groups work in isolation. The Web, however, is a multimedia tool. It demands the talents of people who can write text, produce sound bites, develop video clips, or design interactive "applets" and link them all together into a program carefully designed to achieve an educational objective. Second, making the most effective use of the Web for education requires an understanding of educational principles. Most of us have not been trained in educational theory and practice; our background is in the medium we produce. Print editors and writers, for example, typically have had training in English or journalism. Videographers and radio producers generally have educational backgrounds in communications or video production. We have focused on the products, using our talents to produce the best publication or videotape or slide-tape presentation that we can, relying on our clients -- the educators we serve -- to combine those elements and others into effective educational programs. The Web demands that we package "the whole ball of wax." Knowledge of educational principles and instructional strategies is becoming just as important as ability in writing or editing or speaking or shooting. The purpose of this paper is to present some very basic educational concepts that can be applied in developing effective multimedia educational programs for the Web. While there is only space enough to touch on fundamental concepts, those concepts can go a long way toward improving our practice and may serve as a stimulus to further reading, training, and reflection. Let us return for a moment to an important assertion made above: that informing is not educating. Working as we do in media-specific units, we may be inclined to think that the products we produce -- videotapes, publications, slide shows, or whatever -- will do the entire educational job. They will not. They are effective educational tools only when used as part of a broader, well-designed educational program. Basically, education is the process of bringing about change in the individual. That change may be cognitive (what the person knows or believes), it may be the development of a new skill, or it may be a change in attitude. Ultimately what we seek is a change in behavior, which will come about when the individual applies his or her new knowledge, skill, or attitude to a specific life situation. For example, if a person gains greater understanding of personal finance and develops skills in budgeting, accompanied by a change in attitude toward financial matters, he or she may do a better job of managing the family's resources. Education, then, is not the process of "dumping" information into an individual as if that individual were a holding pond for facts. For centuries, education, particularly as applied to youth, was actually viewed as the process of delivering information to be memorized. Paulo Freire (1970) referred to this belief as “the banking theory of education”: the teacher “deposited” information into the “accounts” (minds) of the learners. People can learn many facts, but memorizing information does not expand the mind or change the way in which people interact with the world around them unless they process those facts, relate them to existing knowledge, and consciously use the information to develop new skills and attitudes. In this century, we have come to understand that experiencing is the key to learning, especially for adults. Children have many facts to learn as they grow up (how many ounces there are in a pound or what nine times twelve equals, for example). Adults already have command of multitudinous basic facts and know how to gain any other information they may need. Their need is to improve the ability to cope with their social roles -- on the job, at home, and in the community -- by developing new perceptions or skills. To achieve that goal, they need carefully designed educational programs that provide experiential learning situations through which they can develop and practice new understandings and skills. Since most of the educational materials and programs we produce in agricultural communications units is intended for adults, our job is to develop educational tools that will provide either real or realistic vicarious experiences so that adults can explore, experience, and learn. To do so, we need to know something aboutadult learners.

Characteristics of Adult Learners

Although it has been widely debunked, we still sometimes hear the assertion that “you can’t teach an old dog new tricks.” Most of us don’t believe it anymore -- unless of course we’re using it as an excuse not to attempt to learn something new. But at the turn of the current century this axiom was widely accepted. Education was for young people; when you graduated from grade school, high school, or college you were assumed to have all the knowledge and abilities you needed for life. But things didn’t change as rapidly then as they do nowadays. Today we know that people’s educations become obsolete within a relatively short time after graduation. Engineers, doctors, lawyers, teachers, technicians, salespersons, and assembly-line workers all need to be retrained to keep their skills current with changes in technology. This is certainly true in the subject areas with which we deal: agricultural production, child development, financial management, community economic development, waste management, environmental quality...in Extension the list is nearly endless. Thus the adult is a central target for our educational programs.

Adults are largely self-directed learners. Think about the things you have learned and the skills you have developed in the past year or two. For example, think about how you learned about the World Wide Web. Did anyone force you to learn those things? Probably not. Adults tend to learn what they want or need to learn when they want or need to learn it. They tend to learn what they perceive to be of immediate value to them in fulfilling their social roles. Knowles (1980, p. 53) has observed that “to adults, education is a process of improving their ability to cope with life problems they face now. They tend, therefore, to enter an educational activity in a problem-centered or performance-centered frame of mind.” Educational programs that do not address current, important needs will not attract these voluntary learners. Consequently, it is essential to establish rapport with potential learners and work with them to identify their educational needs (Boone, 1985). Programs developed to address clearly identified and validated needs are much more likely to be successful than those based on the educator’s own unsubstantiated perceptions of learner needs or statements about what they learners “ought to know.”

Malcolm Knowles (1980) lists other adult learner attributes of which designers of adult education programs should be aware. Knowles, who for many years directed adult education programs for the YMCA, points out that the format and time schedule of the program must be developed with the recognition that adult learners have many other responsibilities to their families, jobs, religious organizations, and communities. Fortunately, Web-based educational programs free learners of the need to be in a certain place at a certain time. They can take part in a Web learning experience at any time of the day or night, wherever access to the Web is available -- at work, at home, or elsewhere.

Because they are self-directed, adults set their own learning objectives. For an educational program to attract and retain participants, the educational objectives must align closely with those of the learners. Furthermore, the learners must be able to see readily how each element of the program contributes toward reaching those objectives.

Adults, because of their multitudinous responsibilities, also find their time precious. They cannot afford to engage in activities that do not lead directly to the desired educational outcomes. Unless they have an unusual amount of leisure, they cannot and will not watch videotapes or read large amounts of text on peripherally related subjects.

Finally, like children, adults need feedback in the form of support, encouragement, and positive suggestions for improvement in their performance. Their standard of performance is internal; in most cases they do not need to answer to an outside authority. They judge their performance in an educational setting against their own goals and standards. They therefore need to know when they have succeeded and to what degree, and they want suggestions for improvement.

These principles suggest some characteristics that Web-based educational programs should possess if they are to be successful in educating adults. In the next section we will examine three key characteristics.

Characteristics of Successful Web-based Educational Programs

1. **Successful programs are designed to meet the learners' needs.** The first step in designing any educational program should be to determine what changes in knowledge, skills, or attitudes will benefit the learner. The most valuable source of information for the educational program designer -- and the source most often overlooked -- is the learners themselves. People often sense when they need to enhance their learning in specific areas of their lives. When they do, identifying educational needs is as simple as asking them. For example, I recently realized that I needed to know about Sun Microsystems' new programming language called Java and the Web browser called Hot Java. When a colleague informed me about a local seminar on this topic, I rushed to sign up. Sometimes potential learners are not consciously aware of their learning needs, but they often can identify issues of concern in their lives that an astute educator can translate into educational needs and objectives, which then in turn can be tested with potential learners. Other sources of information about educational needs include employers, community leaders, spouses, religious leaders, social service agency personnel, and Extension Service agents.

   Fortunately, the Internet provides opportunities for developers of Web-based educational programs to survey potential learners and others about educational needs very easily and at low cost. For example, if we were considering offering a program for agricultural communicators on developing Web-based training programs, we could easily contact heads of agricultural communications departments and all members of organizations such as Agricultural Communicators in Education to determine their level of interest and the specific topics that they would like to see covered in such a program. Interacting with the learners during program design and development not only provides valuable information about learner needs and interests but also publicizes the upcoming program and gives those who enroll a sense of ownership in the program, increasing the probability that they will participate and learn.

2. **Successful programs engage the learner in an experiential process.** As we have discussed, programs that simply provide information are relatively ineffective in helping people learn. Learners must interact with the information, integrating it into their own conceptual frameworks (Boone, 1985). What we read, see, or hear we forget quite rapidly unless we relate it in meaningful ways to things we already know or apply it to situations that are meaningful to us. Where skills are to be taught, learners need opportunities to practice the skills until they achieve mastery. Teachers of mathematics have long used this strategy by requiring students to apply math principles to practical situations: in other words, to work the “word problems” that we all dreaded.

   Because of its interactive, multimedia nature, the Web offers a multitude of opportunities for experiential learning. For example, in the context of an educational program the learner can interact in real time via the Internet with a computer program that simulates a practical situation and allows the learner to observe immediately the results of alternative actions. Using the latest technologies, browsers can automatically download small application programs called applets. These programs, which could include spreadsheets or simulations, can be very valuable interactive teaching tools. For example, a learner could use a spreadsheet applet within a program on family financial management to explore the effects of various options for handling the family’s investments. On a simpler level, learners can interact rapidly with the instructor or with other learners in the program to resolve questions and discuss issues using the automated e-mail features that most Web browsers incorporate.
3. **Successful programs provide rapid feedback and reinforcement.** Adults often approach educational programs with some trepidation about their ability to perform (Cross, 1984). Many have been away from formal educational settings for years and are reluctant to engage in educational programs for fear they may not measure up in the eyes of their peers. They often live and work in a competitive environment where to admit ignorance is to lose advantage. Reassurance at the outset and positive feedback during the program are essential to encouraging and sustaining the learners’ participation. Good educational programs are designed to ensure that the learners will have an early success (for example, be able to successfully complete the first assignment), that learners will continue to receive encouragement and positive suggestions for improvement throughout the program, and that their achievements will be recognized at the end.

   Fortunately, Web-based educational programs are ideally suited to the needs and concerns of adult learners. At one extreme, the educational interaction can take place strictly between the individual learner and the remote computer if that is what makes the learner most comfortable. Exchanges between the instructor and learner can take place by individual e-mail. In a typical program, the learners might be assigned to experiment with a simulation applet; the results can be returned the Web server and examined by the instructor, who can then evaluate the results and by e-mail messages to individual learners offer feedback on performance and positive suggestions for improvement. For learn-ers who are more confident, electronic message groups and listservs can be used to stimulate discussion among the participants. Much of the learning in adult education programs comes from interchanges among the learners themselves, supplementing the learning opportunities designed into the program. Listservs and message groups can also help learners keep in touch and exchange information after the formal learning program has been completed, reducing the likelihood they will abandon their newly developed perceptions and skills and revert to old ways of thinking and former patterns of behavior.

Conclusion

The World Wide Web offers dramatic new opportunities for delivering interactive multimedia educational programs to individuals at far-flung locations, who can take advantage of the programs at their own convenience. The Web offers opportunities for learners to engage the subject matter and to practice newly developed skills so that learning is retained and applied. Successful educational programs, however, involve more than providing information, even if that information is presented through multiple media such as interlinked text, video clips, and sound bites. Effective programs are based on a careful analysis of learner needs, they provide experiential learning opportunities, and they provide timely feedback to the learner as well as interaction among learner groups.

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Using Adolescent Novels to Disseminate Agricultural Information

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Agricultural communicators are constantly searching for the most appropriate vehicle to use in disseminating agricultural information. Today, we are attracted to such devices as the World Wide Web and interactive multi-media. We are constantly searching for the hottest, newest technology. However, we may be overlooking a time proven device that was extremely useful in promulgating new farming methods during the 1920s and 1930s - the agricultural novel.

During the 1920s and 1930s a number of adolescent agricultural novels were published. These novels were popular with teenagers. These novels promoted modern farming practices and heavily pushed the FFA and 4-H programs. The novels also contained heroes, villains, conflict, suspense and love. But the underlying theme was the application of modern farming practices would save the day. (Notes on the research methodologies used in this paper are found at the end of the text.)

The Agricultural Novels

At least eleven novels promoting agriculture were published between 1925 and 1940. Five authors were involved in writing the novels. A listing of the authors and their works is found in Table 1.

Table 1. Adolescent Agricultural Novels, 1925-1940.

Author	Title	Date
Betty Baxter Anderson	Adventures in 4-H	1938
Arthur Charles Bartlett	4-H Cowboy	1938
John Case	Tom of Peace Valley	1925
	Under the 4-H Flag	1927
	Moon Valley	1932
	Peace Valley Warrior	1937
Paul Chapman	The Greenhand	1932
Sarah Lindsay Schmidt	New Land	1933
	Ranching on Eagle Eye	1936
	The Secret of Silver Peak	1938
	Shadow over Winding Ranch	1940

The Case Novels

John F. Case, editor of the *Missouri Ruralist* and President of the Missouri Board of Agriculture, wrote three “vocational agriculture” novels and one 4-H novel. The first, *Tom of Peace Valley* (subtitled Boy Knight of Agriculture), published in 1925 tells how the hero and main character of all three vo-ag novels, Tom Woodson, became involved in vocational agriculture. Tom, who was reared in an isolated backwoods valley where trapping and hunting were the main stays of existence and "eddication" was ridiculed, had the opportunity to go "outside" to the little town of Blanton 10 miles away for schooling. With moral support from his mother and financial support from an "outside" uncle, Tom went to Blanton, found a place to board, and enrolled in school. Tom's decision to go outside the valley for education was not warmly received by the populace in Peace Valley.

On the way to school the first morning, Tom came across a group of local boys beating up on the town drunk. He broke up the altercation but this action was the start of a lasting hostility between Tom and the local "in group" which was lead by "Bull" Durham, the only son of the town banker and school board president. It was only a matter of time before a fist fight was provoked by Bull. Bull received a thrashing in an honest and fair fight but told his father that Woodson and a gang of boys beat him up. Mr. Durham convened the school board and attempted to get Tom kicked out of school, but was not successful because the agriculture teacher, John Roberts, had seen the fight and told what happened.

Because of his love for the outdoors, Tom had been enrolled in vocational agriculture which was a new program that year. Mr. Roberts was not only the agriculture teacher but a collegiate football star and Blanton High's football coach. He encouraged Tom to join the team. Even though Tom had never played the game he quickly caught on and was soon giving Bull Durham considerable competition on the playing field.

Tom found vocational agriculture to his liking and was soon planning a corn project and was enrolled in the state corn growing contest. Tom, with help from Mr. Roberts, rented a plot of land in Peace Valley for the project. Because of Tom's outstanding performance in a state corn judging contest, the top corn grower in the state gave Tom some seed corn. However, the plot thickened when a midnight thief stole Tom's seed corn. Tom enlisted the aid of his mountain kin (and dog) in following the trail of the thief and found where the seed corn had been hidden.

Soon Tom was preparing the ground and planting corn to the great amusement of the locals in Peace Valley. Everyone knew crops just didn't grow in Peace Valley, farming was hard work, and the time could be better spent fishing and hunting. Tom was soon studying the art of growing corn with great determination and applying what he learned in the vocational agriculture class, to the great derision of the locals in Peace Valley. However, after a while it became evident that Tom would have an exceptional corn yield and the hill folk started taking pride in Tom's field and even started protecting the field from varmints, both two legged and four legged.

The book concludes with Woodson and Durham grudgingly working together to carry Blanton High to a major football victory over arch rival Denman High. This stirring victory united the town folk and the hill people. Tom made a profit of $700 on his corn crop, placed second in the state corn growing contest and won a prize of $250. The books ends with Bull Durham repenting of his treacherous ways and confessing to stealing the seed corn and trying to destroy Tom's corn field.

In the second Case novel (*Moon Valley*), Tom has graduated from the state agricultural college as a vocational agriculture teacher and has the hard job of convincing the adults and students in a new school district, Moon Valley, of the values of vocational agriculture. Tom is also the school principal and teaches adult farmer classes. In a suspenseful plot, the school is torched, bullets are fired, and a girl is wooed before Tom and vocational agriculture triumph. In the third novel (*Peace Valley Warrior*), Tom is elected to the state legislature.

Case also wrote *Under the 4-H Flag*. In this novel a struggling farm family was able to turn their fortune around by following the advice of the county agent. The poor family (especially the fiddle playing father) was also able to gain a measure of prestige through involvement with the 4-H program. And the mystery of the missing pigs was solved.

The Chapman Novel

The most celebrated vocational agriculture novel was *The Greenhand,* written by Paul Chapman in 1932. In this novel a backwoods rowdy, Fred Dale, after disrupting a Future Farmers of America Banquet and accidentally shooting the vocational agriculture teacher during a deer hunt, is persuaded to enroll in vocational agriculture and join the FFA. Slowly he becomes involved in the FFA and public speaking, much to the dismay of "Red" Holt, a rival. He gets the vocational agriculture students involved in a cooperative project growing tomatoes for a soup company, falls in love with the beautiful daughter of the soup company president, and wins the national FFA public speaking contest just in time to rescue the home farm, on which he and his widowed mother live, from the clutches of the about-toforeclose judge. His winning FFA speech is about the South and how modern agricultural practices can lead the South out of poverty. He also wins the heart of the girl.
The Greenhand was made into a 90-minute movie by the Sears Roebuck Foundation in 1939. The *Farm Journal and Farmer's Wife* (Andersen, 1940, p. 43) describe the movie as "...a romance-coated plug for scientific agriculture and better farming in the South." The setting for the movie and the novel was Georgia. The actors were all amateurs and included state and federal vocational agricultural officials. Chapman was Dean of Agriculture at the University of Georgia and wrote numerous technical books. This was his only novel.

Betty Baxter Anderson

While most of the novels were for boys, the Anderson novel had a definite female slant. A rich, pampered city girl who is on the verge of becoming a juvenile delinquent is sent to the country to spend the summer with her "hick" cousins. Grudgingly, she becomes involved with 4-H club work. Soon she is transformed into a responsible young lady through her involvement with the 4-H program. Anderson wrote a number of career oriented novels for girls. This was her only agricultural novel.

The Schmidt Novels

Sarah Lindsay Schmidt wrote at least four books about vocational agriculture students. Even though each book is different there are similarities in all the books. The setting for each book is in the West (Colorado or Wyoming). In each story there is typically a ne'er-do-well father with a motherless family composed of one or two boys (one still in school and one out) and a strong sister, and a malevolent school age adversary whose father is typically the prominent citizen in the community. In each novel there is conflict, suspicions of dirty dealings, a neighboring girl to be wooed, and a foreboding mortgage. In each novel, the application of modern agriculture practices saves the day (irrigation of alfalfa, marketing livestock cooperatively, developing a hybrid corn). There is also a strong, patriotic dose of the Future Farmers of America in each book. One student even became the Star Farmer of America (David in *Shadow over Winding Ranch*).

Ms. Schmidt's husband was G.A. Schmidt, the agricultural teacher educator at Colorado State. She also wrote a book in 1943 titled The Hurricane Mystery and one in 1953 titled This is my Heritage.

These books have not been located.

Arthur Charles Bartlett

The Library of Congress contains a book written by Bartlett entitled *4-H Cowboy*. The researcher has not yet been able to locate a copy of this book. Bartlett wrote numerous novels about dogs for the adolescent reader.

Other Publications of Interest

During the course of this research, the investigator discovered other sources of literature that were popular with students. A number of the farming magazines carried fiction pieces and special columns for young people. For example, *Farm Journal and Farmer's Wife* often carried a column during the 1940s titled "Young America" or "Young Farmers" or "Farm Journal Boys" (yes, there was a "Farm Journal Girls" column that featured recipes and answered letters from girls). At times there were short pieces designed to appeal to teen-age boys such as how to hunt for crows, how to throw a curve ball, how to go camping, and how to take good pictures. It was common to have a mini-novel that was full of adventure carrying over from issue to issue.

Conclusions and Discussion

The avowed purpose of most of the novels was to provide worthwhile leisure time reading for rural students because "... there has been a dearth of good books available for farm boys and girls." (Nolan, 1936, i). However, the novels were also used to promote modern farming practices, 4-H and vocational agriculture. During the period in which most of these books were written, America was in a depression and there was a mass exodus from the farm. These novels showed the success one could achieve by applying modern farming practices and becoming involved with the Future Farmers of America or 4-H. One book (*New Land*) showed how out-of-school youth could benefit from the part-time program of vocational agriculture. It was clear from reading the books, that in spite of the depression, mistrust of scientific agriculture by some of the elders, and adversity (generally, the town bully), vocational agriculture and 4-H held the promise for a better rural life. And you could also win the heart of the girl.

The reading of these novels was strictly voluntary in most cases. Many agricultural departments had copies of these books and would loan them to the students. A series of "Suggestive Helps to Teachers of Vocational Agriculture" was started in 1935 by the agricultural education staff at North Carolina State University. The first publication was a "General Reference List for Teachers of Agriculture." This publication recommended *Tom of Peace Valley, Moon Valley, The Greenhand,* and *New Land* to the vocational agriculture teachers. A 1937 update of the list included Ranching on Eagle Eye. Brunner and Koble (1954) compiled a list of recommended fiction for Future Farmers. Most of their recommendations were general outdoor action books by authors such as Zane Grey, Jack London, and Rudyard Kipling. However, they do list the Case novels.

It should be remembered that during this era in America, 92% of the rural residents had limited access to libraries (Streeter, 1940) but eagerly sought books. Rural electrification was yet to come in many areas and television was non-existent. After the sun went down in rural areas, you either read, listed to a battery operated radio or visited the neighbors on weekends. People were constantly searching for good reading material.

In a few instances, reading these novels was not voluntary. In some areas of Louisiana, *The Greenhand* had to be read in order to get the Greenhand degree and *Tom of Peace Valley* had to be read to get the Chapter Farmer degree (Curtis, 1984).

One additional purpose of this literature was to develop character. According to Nolan (1936, i), "They should be definitely contributive to character education, since justice and right are consistently exalted, and punitive nemesis properly dealt out. Good will, good deeds and noble personalities are exemplified..."

Agricultural education novels were important during the 1925-1940 era. They provided worthwhile leisure reading for students but also contained moral lessons and promoted modern farming practices. The underlying theme in each novel was that good triumphs over evil. It was also apparent that vocational agriculture, modern farming practices, 4-H and the Future Farmers of America were the keys to success.

The use of similar novels in agriculture might be of value today. Samuels (1989) found that students like "problem novels" and teen protagonists. Johns and Davis (1990) indicate students can be better readers if teachers suggest books that match student interests and make a great number of books available to students. This was happening in agriculture in the 1925-1940 era. Perhaps agricultural communicators should reflect on this information. If we want to reach teenage audiences with agricultural information, we might remember that novels or information presented in story form have been effective in the past. Perhaps this method could be effective today.

Methodological Notes

Standard historical research procedures were used in this research. First, all issues of *The Agricultural Education Magazine* published between 1925 and 1940 were examined to identify agricultural novels. During this era numerous news items were published in the *Magazine,* including announcements of new books. The researcher also searched the *Farm Journal and Farmer's Wife* and *Successful Farming*. Brief discussions of new books were regularly featured in these publication. Suggested lists of readings for vocational agriculture students published in The *Agricultural Education Magazine* (Brunner, 1954) and by the agricultural education faculty at North Carolina State starting in 1935 were examined.

After identifying the agricultural education novels and their authors from these sources, the Union Serial Listing was consulted to determine if additional, but yet unidentified books, had been written by the same authors. After the researcher was satisfied that most of the books had been identified, a personal search was conducted for the identified books in university, school, public and private libraries in Wisconsin, Colorado, Louisiana, Indiana, Texas, Georgia and North Carolina. Next, personal or phone interviews were held with individuals (generally retired agricultural educators) in Virginia, Georgia, Illinois, Washington (DC) and Louisiana to secure more information about the books and to determine how they were used.

This was followed by a trip to the National Agricultural Library for additional research on the topic. This research was conducted over a seven-year period. During this research, several series of juvenile novels (The Boy Ranchers, the X Bar X Boys, the Saddle Boys, the Pony Rider Boys and the Range and Grange Hustlers) were found that glorified farming and ranching but had no connection to vocational agriculture or 4-H. These books had minimal educational value and were excluded from this research. Copies of most of the books were obtained by the researcher and read. Detailed notes concerning each book were kept and a qualitative interpretation of each book was made by the researcher.

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The World Is Coming to Our Door: Georgia Agriculture Is Ready to Greet Them
A Case Study of One State's Efforts to Market Agriculture Through the Olympics

By Faith Peppers Extension News Editor University of Georgia, Athens

Introduction

In July and August 1996 more than 1.1 million out-of-state visitors and more than 675,000 Georgians will pass through the streets of Atlanta. The immediate economic impact on Georgia of hosting the 1996 Centennial Olympic Games is projected at $5.1 billion. That is more than 31 Super Bowls or 113 years of commercial fishing in Georgia (Niemi, Albert and Jeff Humphreys, "Dollar Value of Olympics," *Georgia Trend/Business Atlanta,* September 1995, pp. 15-17).

The Olympic Games, and all the festivals leading up to and following, will afford the state an unparalleled opportunity to educate this global audience about the South. The University of Georgia College of Agricultural and Environmental Sciences is taking advantage of this opportunity in many ways involving as many areas as possible.

Strategy

Because the Olympics will be focused in Atlanta, but competition will be scattered throughout the state (including three events on the University campus), The University of Georgia has unique opportunities to get involved and introduce the land-grant system, Extension and Georgia agriculture in general to a worldwide audience.

The College of Agricultural and Environmental Sciences is involved in projects that will reach a variety of audiences, including athletes training in local communities, the international media and visitors to the Games.

Projects were supported through information in employee publications, committee participation and statewide collaborations. Many county Extension agents are serving on community committees to promote their area to visitors to the Games. Extension and college specialists were called in as consultants on projects sponsored by the Olympic planning committee (ACOG), and the college supported employees' involvement in agricultural-based programs throughout the state.

Implementation

Georgia Agriculture 96

The largest undertaking of the college is its participation in Georgia Agriculture 96, a consortium of 21 agricultural commodities, agribusinesses and educational institutions working to promote Georgia agriculture during the Olympic Games.

The University of Georgia College of Agricultural and Environmental Sciences has five members on the committee representing the experiment stations, Extension communications, 4-H, Extension agriculture and natural resources, and college alumni. Fort Valley State College has an additional two representatives on the committee from their agricultural college.

In order to be a member of the committee, each organization contributed $10,000. Because the University isn't in a position to make such cash contributions, the college instead arranged in-kind donations. The full-time coordinator of the committee is on loan from the experiment stations. The University continues to pay her salary, benefits and expenses.

The College donated 10 hours per week of time from an Extension news editor to handle the committee's local and state media relations, and donated the use of a new computer to the committee's headquarters through the closing of the Games. The news staff donated time and equipment to produce a media guide that will be presented to the international media as they begin arriving for the Games. (The guide is available on the World Wide Web, along with expanded information about Georgia agriculture.)

These in-kind donations fulfilled the monetary obligation to have a seat on the board of directors.

Centennial Olympic Park: Georgia Agriculture's Living Legacy

Georgia Agriculture 96 has two main thrusts during the games. One is Georgia Agriculture's Living Legacy, an educational plot in the 21-acre Centennial Olympic Park in downtown Atlanta. During the Games the three-quarter-acre plot will be planted in Georgia row crops, trees, turfgrasses and ornamentals. Informational kiosks will be placed around the perimeter of the plot to provide educational information about commodities that can't exhibit in the park, such as livestock and poultry. The kiosks will be equipped with interactive video and possibly robotic replicas of the animals.

The College is involved in the park exhibit in several ways. The committee that will decide what plants will be represented in the park, how to plant them and actually develop and maintain the plot is being headed up by a combination of Extension agronomists and research technicians from the University of Georgia and Fort Valley State College.

The walkways leading up to and through the exhibit will be paved in engraved Olympic bricks. The state's 4-H'ers, along with county Extension offices, FFA, FHA-Hero and College alumni, are selling the bricks across the Southeast. They have developed their own incentive programs, and the Olympic Committee has agreed to donate $5 for each brick sold by 4-H to the Georgia 4-H Foundation's scholarship fund.

During the Games, Extension specialists, 4-H'ers and news editors will be in the park to give information about Georgia agriculture to visitors. After the Games, College agronomists will replant the park in native Southern ornamentals, trees and turfgrasses. The plot will then be cared for by Atlanta-area Urban Gardeners, Master Gardeners and the Extension Corporate Gardener groups. A 28-by-28-foot hardscape made from Georgia marble and featuring a map of Georgia etched with the Georgia Agriculture 96 logo, will remain in the park as a lasting legacy to agriculture's contributions to society.

The American South Marketplace Country Store & Farmer's Market

The second major project of Georgia Agriculture 96 is the American South Marketplace Country Store & Farmer's Market. The Marketplace will be open July 17 through August 4, 1996, to offer visitors products and foods native to Georgia and the surrounding states. The Marketplace will be near the Georgia State Capitol, within walking distance of most of the downtown hotels and the major sports venues.

The Marketplace will be a covered, open-air facility that is expected to attract its share of the more than 1.1 million visitors expected in Atlanta during the Games. In addition to corporate exhibitors, the Marketplace will feature local entertainment and family-oriented activities and educational opportunities. A country store will allow smaller agriculture-related businesses to sell their products in the Marketplace.

Each member of Georgia Agriculture 96 will receive a free 10-by-10 booth in the Marketplace. From the booth, the University will distribute information about the land-grant system, the University's history, the Cooperative Extension Service, the experiment stations and fun facts about Georgia agricultural products.

In addition, a video board will be erected and will constantly show educational pieces about Georgia agriculture and individual commodities. Each contributing member of the committee will be allotted periodic two-minute spots on the video board. Plus, Georgia 4-H'ers will be in the Marketplace performing entertainment numbers and presenting informative agriculture-related demonstrations.

QuiltScape

College and Extension horticulturists were also approached by ACOG to help develop a planting scheme that would reflect the "Look of the Games." These plants would bring out the designated color scheme and pattern to give a unified look to areas around the venues, local parks, business courtyards and home gardens to promote the Games.

The horticulturists developed a list of plants that would give the desired colors, and will help promote using the list and give educational information on how to plant and grow these plants to have them blooming during the Games.

Also, as a part of the QuiltScape program, Atlanta's urban horticulture gardens will be planted in the pattern, with some help from corporate sponsors. This will give Urban Gardeners, Master Gardeners and employees at downtown corporations a chance to work together and form a partnership that is scheduled to last beyond the games. Plans are being made for these corporate sponsors to help maintain the urban ornamental gardens in local public housing, public elementary schools and inner-city parks after the Games are over and to help support the Urban Gardening efforts.

Signs will be placed in each garden to reflect the corporate sponsors, the Urban Garden club and Extension efforts.

Summary

I wish I could quote reams of marketing research, sound data and surveys that were conducted by the College to guide us to the projects we have selected to market agriculture to the world during the Olympic Games. But I can't.

This is, however, a fine example of how to hop onto a moving train.

Georgia agriculture was on the verge of being left out of the Olympics experience. With major corporate sponsors located in the South like Delta, NationsBank, Home Depot and Coca-Cola, it's easy to get lost in the push and shove for big corporate dollars.

A little organization and good support at ACOG helped us show the powers-that-be at the Olympics that agriculture is the largest segment of Georgia's economy and a major part of the state's heritage, tradition and way of life, and certainly deserved a special place in the festivities. They heard us loud and clear.

The support from organizers for the Olympic Park has been tremendous. Even in the face of a potentially explosive situation they have stood by us.

The Atlanta Olympic Games will have all nonsmoking venues, including the park. Yet tobacco is the third largest cash crop in the state. We were really in a dilemma because the Tobacco Commodity Commission was an equal partner in Georgia Agriculture 96, and by all rights should be among the plants represented in the park. ACOG's response: "You're not smoking it, you're growing it." We will have tobacco in the park plot, not as an endorsement of smoking, but to show how one of Georgia's leading crops is grown.

In return, we were able to help them put a new face on a project that was getting loads of bad press: the Olympic Brick Program. The ideas was for Home Depot to sell engraved bricks as a fundraiser for the park. When brick sales bombed badly, ACOG was left holding the bag. Enter bright, eager 4-H'ers.

The Georgia 4-H Clubs, along with Extension offices, FFA and FHA/HERO have been asked to sell 40,000 bricks to help support the agricultural exhibit. All bricks sold by the youngsters will be placed in the agricultural area of the park and will be a part of the lasting legacy to Georgia agriculture. Plus, each brick sold will earn a $5 contribution for the Georgia 4-H Foundation. It has given a much-needed spark to the whole brick program.

Another marketing challenge Extension faced was explaining why, even though the corporate sponsor of QuiltScape had paid several million dollars to be the sponsor, our specialists couldn't promote buying plants from that company over other retail nurseries across the state. A compromise allowed Extension to promote the project without promoting the sponsor, leaving it up the advertisements to promote the sponsor's name.

The brick program and the QuiltScape program are just two examples of the effectiveness of the tried-and-true county delivery system. The grass-roots acceptance of Extension has helped get those programs off the ground. It has given the College and Extension an opportunity to play in the league of the major contributors and show unique opportunities for corporate partnerships with education.

Any new partnership has its settling-in period. Georgia Agriculture 96 broke new ground when it brought the state's commodities together for a common promotion. Then it became a delicate balance of making sure each of the 21 partners gets equal billing in news releases, media coverage, the media guide and even in the logo. Finding a commodity-neutral logo was no easy feat. The group decided on wheat since Georgia doesn't produce much, and it is an easily recognizable symbol internationally for food and fiber.

While we were able to find a niche to get agriculture on the Olympic map, our late entry into the Olympic arena left some obvious missed opportunities. We were not able to secure financial support from some large agribusinesses that normally would have contributed to projects like QuiltScape and Georgia Agriculture 96 because their sponsor-ship dollars were already committed to other Olympic-related events.

Three major sporting events -- soccer, rhythmic gymnastics and volleyball -- will be on the University's campus. Two of those -- rhythmic gymnastics and volleyball -- will be in the Coliseum, just outside the doors of the University of Georgia Extension Service offices. Lack of planning erased any chance of marketing opportunities to scores of visitors who will pass right by our buildings.

Tight security and limited access to the area will eliminate any activity at this point.

More training on how to promote communities could have been given to the agents. Specialists did put together a two-day workshop on farm tours to help some areas near sporting venues attract visitors. More were needed.

The lack of research on the front end left Georgia agriculture and the University taking opportunities as they were presented by others to promote agriculture during the Olympics. However, when presented those opportunities the College and Extension have taken an active, and, in many cases, leadership roles. Data collection mechanisms are built into the effots to help gauge the effectiveness of the programs in which we will participate.

We have discovered that this is a first-of-its-kind effort. We contacted agricultural interests in other states that have hosted Olympic Games and found that they did not make special efforts to promote the industry during the events. So, we also had no precedent to follow.

Some pre-Games communication has allowed us to gather some needed information. Our site on the World Wide Web allows us to communicate with international journalists and exchange story ideas and arrange interviews and tours before they come to Atlanta to better fit agricultural interests into their schedules. At the American South Marketplace, we have hired a company to do exit polling to see what kinds of visitors attended, and what they learned.

The park plot will remain as a lasting legacy to agriculture for future visitors, and any remaining funds from the plot's development will be used to set up a scholarship foundation for agriculture students.

Georgia Agriculture 96 will remain in place in some form after the Games. As the world becomes more and more interconnected, and the marketplace becomes more global, there will be many opportunities for the organization to help market Georgia agriculture in the future.

The programs that are now in place will help us introduce Georgia agriculture to the world in 1996, they will help us develop new relationships with large corporate partners and help us educate those in our own state about what the University of Georgia College of Agricultural and Environmental Sciences and the Georgia Extension Service does to support the citizens of Georgia.

Post Script

The opportunities to get involved don't stop at the Georgia borders. Many neighboring states will be represented in the American South Marketplace. These states are participating in several ways. Some are represented by large agribusinesses based in those states who will display their goods in the Marketplace. Some are represented by regional commodity commissions and some state agriculture departments are planning to have exhibits.

The Marketplace is an excellent opportunity for statewide partnerships in education, government and business to display the agriculture industry. For more information on exhibits at the American South Marketplace, call Georgia Agriculture 96 at (770) 446-1229.

Variations on Technology: Reaching Urban Audiences with Interactive Information Directories

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Extension must compete for recognition in large urban areas. In a frenetic existence, the average urbanite is unaware of the valuable information available through county Extension offices that could make life a bit more manageable. The common challenge to the Extension mission of information dissemination is visibility.

Both Oklahoma and Texas Extension Services launched similar community interactive phone directories in 1995 to meet a growing need for easily-accessed information by urban residents. Built into the projects were the means to track its volume and capture specific use data to evaluate its effectiveness. The two states used slightly different delivery systems making the comparative data important to examine as other states consider these methods and technologies to reach their urban audiences.

Municipalities generally deal with environmental issues, such as yard waste disposal and water quality protection. Recent reports of food poisoning have caused concern about food safety. The county is not a familiar entity in cities. Extension has had to adapt new technologies to assist communities with these concerns, as well as answer questions involving general horticulture and pest management.

The Oklahoma effort is a pilot project in the Oklahoma City area to provide 100 messages 24-hours a day on topics ranging from horticulture to food safety. Oklahoma Cooperative Extension Service (OCES) printed their Guide in more than 800,000 yellow page books, promoting it with 20,000 collateral brochures in nine surrounding counties that did not receive an Oklahoma City directory, but where the call was toll free. Brochures were primarily distributed in Central Oklahoma, but available statewide.

Texas featured a smaller number of messages, 22, using 4-color graphics to stimulate attention. Distribution was smaller (110,000 households) in a free magazine-sized directory designed as a consumer resource and, frankly, competitor to yellow pages. Each directory had a “tip of the week or month” that could be changed for seasonal information or new regulations or research.

The VoiceLink ad started July 1 and was distributed to 110,000 households in the City of Plano, a fast-growing suburb of Dallas with a population approaching 150,000. Residents could access Extension information by dialing a phone number and then entering a four-digit code for specific information. The book could be characterized as more focused on a specific market in the City of Plano, a Dallas suburb of mostly upper income and professional residents, not a traditional Extension audience.

Four messages led to direct connection with county offices for additional help. The company offered, but we did not subscribe, to a fax-back feature which let the caller request a brochure or paper copy of an information sheet faxed to them. Other options included a detailed report on zip codes, and even addresses of callers. For an additional fee, of course. This would be ideal for direct marketing efforts, but out of our price range.

The interactive directories addressed two concerns for Extension in urban areas:

1. **Reaching urban clients more efficiently.**
   The old tried, true and very tired “25 at a time” evening program will never reach a significant number of the one million in the Oklahoma City area or the four million population in Dallas-Fort Worth.
2. **Market itself better to citizens unfamiliar with Extension.**
   In the Oklahoma City metro area, Southwestern Bell printed 811,000 yellow page books. OCES believes this was an excellent marketing tool to promote Extension information and to stress environmental stewardship, reinforcing the popular Blue Thumb program.

In Texas, we found in meetings with vendors that the competition and costs associated with the various telephone yellow page directories is fierce and highly complex. The VoiceLink 2000 project was a first attempt for Interactive Communications to break away from what they seemed to view as the constraints of the telephone company, in this case, Southwestern Bell, to build a more market-oriented product.

Access

OSU's Environment Guide is free to callers within the Oklahoma City calling area, including nine counties in Central Oklahoma -- an area containing approximately one-third of the state's three million population. Callers may access messages outside the calling area for a long distance charge.

One number accesses the main program. Callers must have a listing of topics and corresponding numbers to listen to specific topics. In addition, callers have the option of selecting additional messages or speaking to Extension or Blue Thumb personnel following each message. VoiceLink has direct connect on only four selected topics whereas Oklahoma has call-through access on all 100 choices.

Topics varied between the two states' Extension projects only by category listings and volume. Objectives were the same. Both focused on horticulture, pest management, food safety and environmental topics. Horticulture and pest management messages concentrated on environmentally-sound management practices, emphasized low impact alternatives to chemical use and made very limited chemical use recommendations. Home economics messages focused on food safety and preservation and family and parenting issues.

Each system provided callers with monthly updates on several topics. Messages could be updated, as needed, when information changed.

Distribution

The two states' systems differed primarily in the total number of messages available to callers. The OSU project included 100 very specific messages divided into five sections with two subsections. Texas only had 22 messages in four sections The categories were similar.

Oklahoma	**Texas**
General Information	General Information
Soil tests, TV info on "Oklahoma Gardening"	Food safety, parenting, 4-H
Horticulture Tips	Gardening
Household Pest Control	Pest Problems
Environmental Blue Thumb	Environmental/Recycling

Food preservation/safety	

Environmental Guide subsections within horticulture tips included home gardening, fruits and nuts, lawn care,
trees and shrubs, and flower and houseplants. Subsections of food preservation and safety tips included canning, freezing and food safety. There were five messages updated monthly on the garden, lawn, trees, food safety and Blue
Thumb (which focused specifically on water quality and protection). In VoiceLink, four messages changed monthly
as “tip of the month” for pest control, gardening, parenting and food safety.

Technologically, both the interactive information directory, VoiceLink, and the Environmental Guide offer a
messaging service a step up from previous recorded tele-tips. The mechanics are much more professional. There are
no tapes or machines to be maintained at county offices. Digital messages are professsionally recorded and maintained by the messaging service.

Calls are free to the public and the system is available 24-hours a day. The system is digital and can take many
calls on the same topic at the same time, unlike county phone lines which often are busy. The Collin County Extension office, which serves the City of Plano but is not located there, is listed for individuals wanting additional information. Both vendors provided monthly reports on calls received and how many were direct connects.

Methods

To make this happen, county agents and specialists approached the administration with the new concept of raising
the Extension profile to urban audiences and assisting offices by answering common questions. Urban agents and
area specialists wrote scripts for the pre-recorded messages. Areas of discipline included IPM, horticulture, home
economics and water quality. County agents and specialist wrotes the monthly tips.

OCES funded the Environment Guide for one year at a cost of $12,000. The goal was to generate 100,000 calls the first
year. At the end of four months, the count stood at 8,000 going into the winter -- a long way to go, but seasonal factors could
change the totals. The majority of funding originated from Extension and smaller portions came from IPM, water quality
and Blue Thumb grants under provisions for public education and information dissemination.

VoiceLink 2000 was funded through the Departments of Entomology and Plant Pathology and by water quality
grant monies in Extension District 4 (Dallas). Because it went into a smaller market as a pilot, no

specific goals were
set. Rather, it was viewed as a substitute, or inexpensive version, of a market survey, that would indicate whether or
not a wider scale effort was justified.

Coalitions

Significantly, Texas worked with the City of Plano's Solid Waste Department on this first ad, providing information on the city's solid waste and recycling programs. It's an ideal partnership opportunity that has enabled the Collin
County Extension office (perceived to be the country mouse by the City of Plano city mice) make contact with an arm
of city government that they had not dealt with before.

The Blue Thumb program in Oklahoma has forged strong relationships among local and state government entities
and business and consumer groups.

Response Data

Table A. VoiceLink 2000 Pilot Project Call Data - July through October 1995
City of Plano, Texas - Collin County Extension Service

Topic	Jul	Aug	Sep	Oct	Total	Percent
Gen Info*	181	52	22	9	264	10
Pest Problems	1,382	104	59	30	1,575	60
Pest of Month		(975)	(15)			
Gardening	343	74	50	10	477	18
Environmental/	262	43	27	3	335	12
Recycling	(170)	(21)	---	---	---	---
Total	2,168	273	158	52	2,651	100

Average 662.75/month for first four months.
* Includes food safety, parenting and 4-H

Table B. OSU Environmental Guide
Call Data - August through October, 1995
Oklahoma County Metro Area

Topic	Jul^	Aug	Sep	Oct	Total	Percent
Gen Info		230	97	102	429	8
Direct connects		(16)	(6)	(13)		

Gardening		1,405	736	531	2,672	51
DCs	(129)	(29)	(115)			
Household*		289	184	162	635	12
DCs	(24)	(7)	(2)			
Food Safety		243	158	115	516	10
DCs	(32)	(6)	(4)			
Environmental		488	272	229	989	19
DCs (Blue Thumb)	(142)	(13)	(7)			
Totals		2,655	1,447	1,391	5.241	100
Percentage Direct Connects			9.2%	4.2%	3.9%	

Average 1,747 calls per month

^ Computer problems prevented data collection.
** Includes pest control*
() = direct connects

Analysis of Data

As we analyze the preliminary data, and its initial impact, we get some hints about where to go from here. The data should stimulate new ideas on how to use this new technology to meet the needs of urban dwellers. Seasonal factors cannot be overlooked as we examine monthly call reports. Promotional efforts must be coordinated with growing seasons to maximize the impact of the public’s interest in the topics.

Three major differences contrast the two pilot projects:

1. Oklahoma printed brochures and promoted their Information Line. Texas did not, partly due to funding limitations, but more for philosophical reasons -- trying to test whether the information directory could generate its own calls.
2. The size of markets was vastly different. While the City of Plano is large (100,000 plus), as a target market, it is a very small portion of the four million in the sprawling Dallas-Fort Worth metro area. On the other hand, Oklahoma’s pilot approached saturation of their market, reaching 811,964 households and businesses in a population pool of one million plus in Oklahoma City and surrounding counties.
3. Costs were significantly different. Oklahoma paid $12,000 for a year in a known publication.

Texas paid $500 for a 6-months trial run in a start-up product.

Comparison to Maryland

Both Minnesota and Maryland operate similar programs. Since 1990, Maryland Cooperative Extension has
maintained a Home and Garden Information Center with a toll free phone number for residents of the state of Maryland. It cannot be accessed from outside the state. Taped information is available 24 hours a day, 7 days a week and horticulture consultants are available 5 days a week. Pre-recorded information includes a "Tip of the Week" as well as
answers to the most frequently-asked questions.

Since its inception in 1990, the Center has handled over 190,000 telephone calls. Of these approximately 105,000
(more than half) were helped with questions personally by Center staff. These statistics point to a potential problem.
This would throw some Texas county offices into total gridlock. This is what our counties want to avoid in many
cases, because it requires so much staff time. Yet, this reaches people who've likely never before been served by
Extension. How do we use this technology to achieve the information dissemination goal without generating a massive staffing shortage? Can such an effort really be maintained at the county level?

Maryland has mailed approximately 5,000 fact sheets, 2,500 soil test kits, diagnosed 373 plant samples and
produced 50 research-based publications on environmental horticulture issues such as ornamental insects, diseases,
and pest management.

In 1993, 900 volunteer hours were donated at the Center on various projects. Statewide 7,500 hours were donated
by Master Gardeners and 161 new Master Gardener interns were trained.

Problems

Once in place, managing the service is no small job. While start-up is the most intense, there must be a process
for keeping updates on track and evaluating the report data. Some glitches we encountered:

1. Planned and executed by a committee of specialists and agents, the project should ultimately have been handed off to the County office. In Texas, the three specialists sort of ran a "firehouse" operation of getting updates done by
the person who could get to it, although most scripts were done at the beginning.
2. Keeping messages under 1.5 minutes was a formidable task and writing for the ear is a special challenge.
3. We had no system for tracking which calls coming to county offices resulted from the directory. Nor were we able to measure an increase in the volume of calls, even though data show July in

Oklahoma had an average 10 extra calls
per day as a result of direct connects.

4. Vendors did not provide timely reports. A computer problem prevented Oklahoma from receiving beginning data for June and July.
5. Collin County has no Master Gardener program so all calls must be fielded by Extension staff while Oklahoma County has a strong contingent of 100 Master Gardener volunteers who help field these calls.

Conclusions

The Extension Service increased awareness and access of research-based information offered. This was an
excellent marketing tool for visibility promotion of non-traditional programs for urban audiences.
Since these were pilot projects, they focused only on specific areas in each state. This information access system
is an effective solution for urban county offices to answer more consumer questions and helps Extension reach a
commuting, confused, and sometimes clueless urban clientele.

What next? in Oklahoma City or Tulsa? in Texas? in Fort Worth, who hoped to be the next pilot city in Texas? To
Market or not? Cost -- who pays and how?

If results of the pilot are successful, we hope to write a grant proposal for a bi-state phone messaging 800 number.
The emphasis on this being a pilot program is that the long-term costs, at least in Texas, are too high for Extension to
sustain without firm administrative support. We negotiated a $500 price for this six-month trial in Plano and hoped to
negotiate a similar price for the Fort Worth pages. Prices are comparable for Oklahoma.

Interactive Communications normally charges $15,000 for a full-page ad and messaging service for six months.
They have offered a price break based on our University status of $9,000 for six months. This appears to be impractical unless communities underwrite the service.

As we prepared this paper, Interactive Communications, publishers of the VoiceLink 2000 book, decided against
publishing another book in Plano or any other city. They report Extension one of their most aggressive and effective
draws in the book. However, individual advertisers didn't get enough calls to justify the cost. The message service will
remain in place, but no new directories will be published or distributed.

So, investigation will continue on alternatives. SelectTalk, through the standard yellow pages, reportedly takes 16
million calls a year and may be the next stop for Extension, should a favorable rate materialize. The

initial call
statistics will help us develop a rationale for action.

Extension personnel, especially the joint IPM group comprised of Texas A&M and OSU agents and specialists,
agree they would like to include greater portions of each state. They are exploring the possibilities of a single information access system shared by both states through an 800 number to include North Texas and most of Oklahoma.
This would take Extension to a higher percentage of clientele and increase visibility of both state Extension services.

Message information varies little between North Texas, Oklahoma City and Tulsa. Oklahoma and North Texas
have similar pest problems and environmental concerns. Information that does conflict will be minor.

Estimated to cost $12,000 to $20,000 a year, an 800 number would be provide a single service to all communities
in a two-state area -- clearly a bargain compared to the city by city approach.

External Relations Program for Public Accountability

Donald W. Poucher Director, Educational Media and Services Institute of Food and Agricultural Sciences University of Florida, Gainesville

Relevance of the Land Grant System

> "The Land Grant System to many people may seem like the Homestead Act -- far away and long ago and not very relevant. Fundamentally, the Land Grant System is in an epic, or life and death, competition for the hearts and minds of Americans. Ultimately, that translates into political and financial support of those Americans.
> ... The Land Grant System, like all other American institutions, must reposition and redefine itself, its mission and its delivery on that mission in an America that is reinventing itself. Values are evolving, priorities are shifting, we are approaching zero based public policy. That means public policy that says in effect, ' *Don't tell me what you did for me yesterday, tell me what you'll do for me today and tomorrow.'*
> ... We are swimming against some very strong currents. Federal funds are being redirected, state and local funds are under unprecedented pressure.
> ... Beneath all the competition for support, there beats an ever-growing mantra of relevance, relevance, relevance! ... We are suffering from a reputation deficit. Reputation is equal to sound performance that's well communicated and appreciated.
> ... We've done well on performance. But now we need to significantly boost the communications part of the equation."1

The comments above are those of John Paluszek, CEO of Ketchum Public Affairs in New York City. Mr. Paluszek was retained by the Cooperative Extension Service and the Cooperative State Research Service to study the Extension Service/Experiment Station parts of the land grant system. Paluszek is correct! Land Grant University programs address some of the most pressing problems facing society today. But the truth is, public perception lags and it lags because we fail to communicate an awareness of the programs, how those programs can be accessed by customers, and the benefits those programs provide to individuals and to our communities. We can all point with pride to isolated successes where communication has occurred and programs have been recognized for the benefits that they provide. However, in general, we do a very poor job of communicating the benefits of our research and education programs to the people we serve. Furthermore we often fail to communicate that the University and the cooperating partners are the ultimate provider of the programs that serve our communities.

Purpose

The purpose of this program is to assist you in enhancing external relations programs that help build and maintain public accountability with the people who can influence your future. The intent is to provide ideas and information to help you build an understanding among customers that the land grant programs of your University are active and relevant to fulfill current needs and wants of people and communities. Effective communications, as a part of the accountability process, must be utilized if we are to increase our presence throughout the state and nation and succeed in connecting the success of local programs with our Universities.

What is Marketing?

"Marketing" is often used as a descriptor of what in reality is an external relations program for public accountability. While external relations is a part of the marketing process, marketing is much broader than external relations. Marketing is not selling; it is not media hype. Marketing is assessing, developing, packaging, pricing, communicating and promoting, and distributing. Marketing makes it all work together, to effect an exchange.

Drucker has documented that marketing makes selling superfluous2. He effectively advances the proposition that if a program has been designed according to the needs of the marketplace, selling the program to the marketplace will be unnecessary. Kotler and Fox in their book on institutional strategic marketing embrace Drucker's concept and point out that only by fulfilling the needs of customers can an institution or business effectively market itself.

As consumers recognize their problems and needs, they will seek help in solving these problems and fulfilling those needs. Those products, services and programs offering the best solutions or need fulfillment are the ones most likely to be embraced by the clientele. Effective marketing involves translating marketplace problems and needs into programs to fulfill those needs and informing the clientele of the programs and how they may be accessed. The programs, however, sell themselves because they are solving real problems and meeting real needs of clientele. The programs are customer-driven. Their success in the marketplace is a product of successful exchanges...to receive in exchange for a unit with value, resources of equal value.

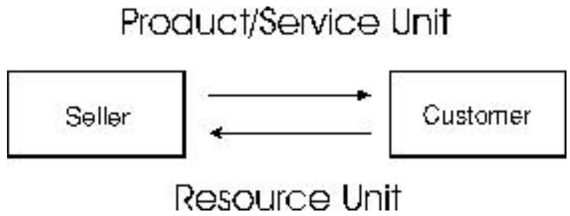
The process of understanding, planning and managing exchanges begins with a basic mission statement of the seller. We are asking several questions, the answers to which provide the beginnings of a mission statement. What is our business? Who is our market? What are the market needs? How can we fulfill those needs? Once we have answered the basic questions, we are in a position to analyze our market, refine our mission and goals consistent with the market needs, develop programs to fulfill the market needs, package the programs, develop our distribution strategy and select customer access channels, implement an effective communications strategy, and complete the exchange.

The purpose of this program is not to describe in detail how to apply the complete marketing process to program development and implementation. Decades of experience at needs identification and program development based on needs should serve us well in those parts of the marketing process.

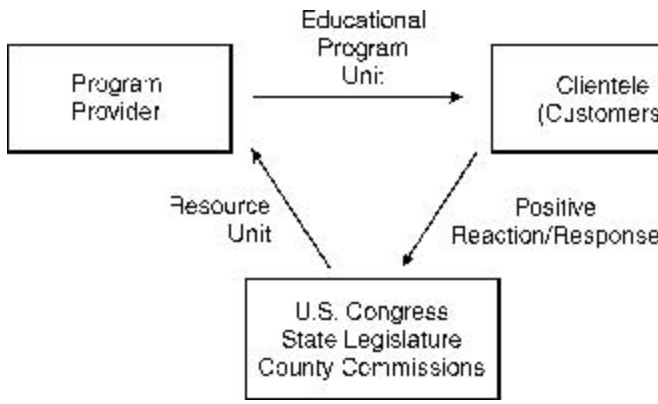
The purpose of this program becomes one of describing the exchange process and how that process affects external relations and thus, a major part of the marketing mix: communications and customer awareness.

The Exchange

No marketing plan is successful unless it provides for an exchange of needs/wants fulfillment for unit of resource. However, the nature of educational funding differentiates us from the business model. In a business model, the exchange is a direct one.



As indicated above, the seller provides a unit of product/service to the customer, who returns a unit of resource to the seller. However, in an educational marketing model, the exchange is indirect.



As can be seen in the educational model, the indirect nature of the exchange is based on the fact that units of resource flow from the customer indirectly through a third party. We are therefore dependent on the positive feedback from the customer to the resource provider. The positive feedback must stimulate in the resource provider a desire to reward us with a unit of resources to accommodate the costs of the educational program. The exchange process can be interrupted where customer response is negative, or where customers fail to identify the University as the source of the program. Thus, the importance of the communications strategy is underscored. It is not enough for programs to solve problems or meet needs. The programs must clearly bear the identity of the University unit providing the program, and the identity must be so dominant and emphatic as to survive the indirect nature of the exchange and help generate a measure of credit back to the unit.

Communications Strategy

Our major communications objective is to relate the value of our programs to customers and potential customers and how these programs may be accessed. Programs, no matter how well planned and developed, will succeed only if accompanied by an effective communicative strategy.

The success of any communication strategy will depend on our ability to recognize and adapt to the challenges and realities of the information age, as opposed to a previous era of standardized procedures and practices of a mass society. According to Judith Waldrop, writing in the December 1990 issue of *American Demographics*,4 everyone will soon belong to a minority group. The diverse needs and habits of the market may in some cases dictate flexibility to provide for mosaic consumption patterns as opposed to mass consumption patterns.

An information age dichotomy is a fragmented mass market of the past as identifiable, dissimilar, yet overlapping constituencies, each of which may need the same information in a slightly different form and at a different time than the others. Therefore, the communications process now becomes a series of dissimilar constituent-specific tasks, all variations of the same theme. Complete reliance on a single strategy ignores the diversity that exists in today's world and increases the chances of failure.

Market segmentation and positioning are also important in developing communication strategies. Positioning depends on market segmentation. Only by remembering the market segment for which we've designed the program can we effectively position ourselves within a given market segment as the provider of the program to meet a specific need. We are talking about appeal and perception. The niche we want a given homogenous group to perceive us to occupy determines how we appeal to that group to access or use our program.

How do we position ourselves among diverse markets? The problem becomes one of developing a position statement that reflects the diverse perceptions of our customers. With the help of research we can understand how we are perceived by our different clientele. We can quantify the perception, and ultimately verbalize it.

Central to the information age is a rapid proliferation of media and media habits which creates a situation where it is no longer feasible to rely on a single communication strategy for reaching the marketplace. For example, future technology will allow newspaper subscribers to order only the news that interests them. Snyder and Edwards, writing about America in the 1990s,5 point out that America spent more than $400 billion during the 1980s on new information technology. This technology will enable people to depend more on computer printouts than books as sources for reading material. Hyperinformation systems, or knowledge navigation, will permit users to build multi-data relationships that can be uniformly managed and accessed according to interest and need. So-called "smart TVs" will know what people want to watch before they are turned on. In the final analysis, to properly communicate the values for our programs and how to access them, we must be attuned to the media selection and use-habits of our customers and potential customers.

What is External Relations?

External relations programs for public accountability include three major elements: impact statement development, positioning and communications, and personal contact.

Effective impact statements provide the basis for the public accountability. Every program has economic, environmental and/or social impacts. These impacts must be identified and included in effective statements that describe the benefits of the program.

Effective positioning and communications are important in establishing a consistent institutional look, consistently applying institutional identity standards, consistently communicating institutional mission and program impacts, and consistently positioning the institution with general and specific publics.

An effective personal contact program provides the vehicle for developing and maintaining positive relationships with decision makers and other important members of local, state and national boards and authorities. The personal contact program includes recruiting, training and engaging volunteers/customers who have been selected for their ability to work with decision makers and other important audiences.

The External Relations Team

The success of the external relations program for public accountability is dependent on the effective interaction of a team of administration, faculty and staff, and customers/volunteers. The administration, in the form of the Vice President and Deans, must chart the course and direction of the external relations program. Other administrators, in the form of County Extension Directors, Center Directors and Department Chairs, must occupy a leadership role in motivating local volunteers/customers and involving them in the process. Faculty and staff must assume responsibility for helping develop program impacts and assessments, identifying key customers/volunteers to be involved in the contact program, and in helping to conduct on-going communications programs and other methods of informing customers/volunteers, legislators, and the general public. Customers/volunteers are asked to maintain direct contact with decision makers to keep them informed and involved.

Developing Program Impact Statements

The development of believable, defensible program impact statements is critical to increased public accountability. The official mission statement only generally describes the University. The programs that support the organizational vision, mission, goals and objectives and the impacts of those programs provide the real ammunition for communicating success and relevance.

Inputs and Outputs vs. Outcomes

The litany of vision, mission, goals and objectives becomes meaningless without programs and program impacts to back it up. Specifically, we must quantify how we are expanding the profitability, global competitiveness and sustainability of industry; we must describe how we protect and sustain the natural resource and environmental systems of communities; we must detail how we enhance the development of human resources; we must demonstrate how we are improving the quality of human life.

We must back up our statement of vision, mission, goals and objectives with specific program examples of how all of these tie to local communities, economies and cultures. We must develop impact statements that capture the results of our programs and their accomplishments and benefits on behalf of local citizens.

In the past, inputs and outputs have been all too often used to describe the various benefits of programs and their impacts on local citizens. We have cited the numbers of hours spent conducting a program by faculty and staff, number of volunteers contacted or enrolled in a program, number of publications produced, or number of telephone calls received. However, we have failed to relate the outcome of the publications, telephone calls, the volunteer enlistment, or the faculty hours spent on a given program. Depending on the program, we must develop economic impacts, social impacts, and environmental impacts as appropriate.

Effective Positioning and Communications: Image, Identity and Public Accountability

An external relations plan is based on clear definitions and understanding of the "product." The mission, vision and strengths define our product. No matter what variations within the organization - different programs, different counties, different personnel -- the mission, vision and strengths remain the same. They form the image we want the public to see and understand. They must be communicated in a consistent manner by a multitude of voices, each a variation of the same theme.

Most diverse organizations situated at far-flung locations sometimes have an identity problem. We tend to see our organization in light of our specific role, our county, our center, our department, or our program. Sometimes it helps to take a step back and look at the work of the organization as a whole. We respond to anything from an urban gardening problem to nutritional education to an environmental disaster, or newly emerging industry problems. Our response can save someone's business or someone's life. To the audiences we serve, our image is as clear as our most recent service to them. The gardener thinks we're knowledgeable and responsive; limited resource families value our nutritional programs; the agricultural producer realizes we can mobilize key groups; the 4-H volunteer is sure we save entire generations. All of those impressions are good, but how can we help these audiences tie it all together? And how do these images align with actual programs?

We have many diverse publics. But if you divide our customers into four major groups -- the general public, subject matter customers, decision makers and media -- do they all have the same collective image of the University? Or are they widely diverse? Is our image among these clientele consistent, accurate and up-to-date?

Organizational identity is defined as the company's overall definition, direction and distinctiveness as perceived by its various clientele. Businesses struggle daily to project a unified, clear, accurate image of what they do, what they stand for and why they are unique. The University is no different. Research has indicated that growing numbers of people do not understand that the state university is a land grant institution and it provides research and educational programs in agriculture, natural resources, and human resources. If you were to survey your local residents, would they know of our relationship with your University? What about our ties with communities and regions? Our future depends upon how successfully our institutions can develop a clear organizational identity that identifies with local people and demonstrates public accountability. Our signs, materials and other communications often project a splintered organization. Just looking through various phone books can reveal a fragmented organization through a lack of consistency in listings throughout the state.

Each faculty member needs to realize that he or she has a part in projecting public accountability as a unified, research-based educational system backed by the land grant university. Do we project ourselves as a part of the university, or as a part of county government? Or, another research or departmental unit?

All program areas should have two goals in their communications efforts: to promote the university first, and to promote local identity second. Once we can develop and articulate a clear organizational image and identity, the next step is positioning: developing a strategy that places or positions the University in the minds of people as a valuable source of information and education.

Finding Your Niche in the External Relations Plan

"Positioning" is a word used to describe how an organization wants to be identified by its target

audiences. A position is established by identifying the unique strengths that separate an organization's educational mission and programs from the mission and programs of other organizations. This position occupies a public accountability niche in the educational marketplace that includes strengths and selling points that the competition cannot claim. All communication efforts and accountability material should reflect the strengths and unique position of the University.
In Florida, we want to position each department unit, center, or extension office as:
the University of Florida, providing an impact in (subject) in (location).

Positioning Statement

University of Florida (UF) and volunteers have many opportunities to explain the organization to the public. Before addressing an audience, introducing a program, meeting with other groups, explaining UF to visitors or in other situations where it is appropriate, develop a simple descriptive statement. Here's a suggested statement that conforms to university-wide positioning and goals:

"The (department, unit, center, or extension office) is your University of Florida, providing an impact in (subject) in (location)."

Targeting Audiences

Faculty and staff deal with people all day long.*Do we make every contact count?* Every conversation, every mailing, every outreach should build awareness and public accountability. Before you can build a relationship with any individual or audience, you should think about the purpose of that relationship. Each level of involvement fits into one of three categories: knowledge, preference or commitment.

On a personal basis, think of it this way: You'd like people in your community to know who you are, you'd hope your friends prefer your company and you expect your family to be committed to you. It's the same level of relationships for dealing with various publics. We need a general awareness of our services among the people in our counties and communities; we want to instill a preference for our programs among our clientele; and we want a commitment from decision makers. From some groups such as the media and certain leaders, we want different levels of support on different issues. When planning to build a relationship with someone, you should decide what you want and expect from the contact. Each level requires a different approach.

As a relationship moves from interest to loyalty, the best method of reaching that audience shifts from mass media to targeted media to personal contact. In other words, don't rely on mass media to tell your entire story and don't expect word-of-mouth to sell your programs to the general public. And when you need a commitment, nothing replaces personal contact.

For key audiences, you must develop a personal contact program. Don't leave these relationships to chance. Decide who your target audiences should be, what level of involvement you want and how to reach that level. For instance, your goal is to seek a commitment from volunteers. Mass media might recruit some people and volunteers might put their skills into practice by handling a radio interview. But these mass media outlets probably won't build commitment from volunteers.

Targeted media, like a volunteer newsletter, has more possibilities. You can highlight programs, thank them and keep them informed.

However, if you want real commitment, you should give personal attention to volunteers through staff meetings, telephone calls and individual sessions.

Personal Contact Program

Leaders at every level rely on friends, neighbors, colleagues and associates, and volunteers for advice and assistance in the decision making process. Therefore, local citizens who occupy positions of influence with decision makers can be the most effective communicators with the decision makers. These local citizens (and frequently our customers) are the key to maintaining consistent, year-round contact with decision makers. The external relations program for public accountability seeks to identify and enlist citizens as volunteers who can communicate with decision makers based on educational interests or concerns, local issues, and shared community involvement. It is important for faculty and staff to understand that it is the cadre of volunteers and customers who will maintain direct contact with decision makers to help facilitate and increase accountability.

Those volunteers/customers will be asked to make contact with an identified decision maker, encourage them to attend programs and activities of the extension office or research center, help find ways to get that decision maker involved with local programs, and be prepared to contact that decision maker to discuss issues and concerns throughout the year.

Identifying Volunteer/Customer Prospects

The first step in enlisting volunteers/customers is to develop a list of prospects from which appropriate volunteers can be identified for contact with specific decision makers. There are several questions that we must ask in identifying prospects:

- *Who contributes to political campaigns in your area?*
- *Who serves with you on other county and community committees?*
- *Who are active in the various local political parties?*
- *Who are active in church groups?*
- *Who are active in fraternal and neighborhood organizations?*
- *Who are visible campaign workers for candidates?*
- *And most importantly, of the above who are customers of the UF/IFAS programs?*

The first place to look for volunteers is those listings of customers/clients served by your programs. Of those listings, we can then identify other qualifiers such as those who have worked for decision makers in the past; those who have worked for decision makers' parties; those who are friends, relatives and acquaintances of the decision makers; key members of the decision makers' campaign organization; those people who attend meetings, coffees, and other functions on behalf of decision makers; and those who have contributed personal funds or have raised funds from others for the decision makers' campaign.

Qualifying the Contact Volunteer/Customer

Once we have listed all the potential volunteer/customer contacts, the next task is to rate each of the potential volunteer/customer contacts on an appropriate scale based on individual circumstances. For example, in the case of one volunteer, we may find that we can uncover only three solid ties between the volunteer and the decision maker. In that case, the maximum number of points to be awarded to a potential volunteer would be three. In cases of other volunteers, there may be five factors that can be used to link them with decision makers. In every case, the goal is to identify volunteers who have the most substantial ties to decision makers and then set about enlisting those volunteers in the contact program. The act of qualifying the volunteers also serves another purpose: it automatically counterparts volunteers/customers with decision makers and provides the basis for assigning volunteers/customers to appropriate decision makers.

Supporting the Volunteers/Customers

It is important that volunteers/customers receive a thorough briefing on the external relations program and that they understand what they can expect of faculty and staff and what we expect of them. Specifically, volunteers/ customers are to serve as a direct means for maintaining year-round communications and contact with decision makers. While the county and center directors and faculty and staff provide the support and the communications information, it is the volunteer/customer who must make the front line approach to decision makers and maintain the direct contact with them. While techniques and frameworks for managing the volunteer/customer contacts will vary from county to county or center to center, several elements must be included to ensure on-going success.

- *Faculty must communicate with volunteers/customers regularly and consistently.*
- *Volunteers/customers must know specifically what is expected of them and what they expect in the way of support from faculty.*
- *Volunteers/customers must be thoroughly apprised of program impacts and benefits both at the local level and the statewide basis.*
- *Contact with decision makers must be consistent and year-round.*
- *Volunteers/customers should be encouraged to develop working relationships with decision makers to serve as sounding boards on issues.*
- *Volunteers/customers must be thoroughly trained to make factual and emotional appeals, using solid data that demonstrate economic, social and environmental impacts.*
- *Volunteers/customers must understand that working with the staff of decision makers is often as effective as working with that decision maker.*
- *Volunteers/customers must be taught to respond quickly and effectively to requests from decision makers and their staffs.*

Profiling Decision Makers

Effective communication to increase public accountability requires that we know and understand our audiences. Therefore, to ensure successful communication with decision makers, we must learn as much as possible about their needs, likes and dislikes, media habits, levels of community involvement and favorite issues. Collect important data on each decision maker (address, phone, children's ages, occupation, educational background, hobbies, organizations, viewpoints on educational issues, involvement with the University, names of secretary and staff members, favorite issues, legislative committee memberships, other anecdotal information). The profile should be shared with the volunteers/customers who may also have additional information. The profile should be updated as often as necessary to maintain current and accurate information.

Master File

A master file of each appropriate decision maker should be developed including the profile as previously described, the year's planned contacts, and reports of progress filed by the volunteer/customer contact. All copies of correspondence sent and received and description of personal visits should also be a part of this file.

Establishing the Contact

Several types of communications can be effective in building relationships with decision makers. Personal meetings are obviously most effective.

On the local level, volunteers/customers can easily develop and maintain on-going personal relationships with decision makers and these relationships should be developed primarily at a time when there is little need px">*(i.e.,* before you have a problem to discuss). Therefore, when problems do arise and you do need assistance from decision makers, they can be called in a personal manner to discuss the problem.

Legislative and congressional relationships are best developed by volunteers/customers when state and federal decision makers and staff are visiting the local district. Volunteers/customers can meet decision makers over lunch, through civic groups, in their offices or by inviting them to attend and participate in your programs in their district. In these personal meetings, it is important that volunteers/customers be positive and constructive in their remarks and be well-prepared with factual material. They should help make the decision makers feel they are benefiting from the relationship and are receiving reliable information on issues. The major function of faculty in the relationship with the volunteers/customers is to provide as much information to the contact person as possible and keep adequately prepared for the on-going relationship with the decision maker.

Maintaining the Contact Program

It is important that year-round contact be planned. Face-to-face visits, correspondence, and direct involvement in educational programs must be thoroughly and completely planned for each decision maker and corresponding volunteer/customer contact.

Personal Visits

Face-to-face visits should always include appointments. Each visit should be pre-planned to determine most important issues to be discussed, views to be presented and facts, figures, impact statements and other evidence to be used as back-up. Often, one page information summaries of a program that the volunteers/customers can discuss with the decision maker or staff member are useful. The visit should be short and to the point and information presented should be factual, accurate, and relevant. Visits should be followed-up with thank-you notes that reiterate the key points and should be included in each decision maker's contact program as on-going throughout the year. One-shot visits are not effective.

Working with Staff

Most decision makers have one or more staff assistants to help them keep track of issues and to conduct the business associated with that particular office. Often, staff take over the role of meeting and talking with constituents. Volunteers/customers should be encouraged to seek out the staff of decision makers and identify them by areas of specialty. Where possible, staff should be cultivated as important allies and tools of delivering information to the decision maker. Staff often have the hottest line to the decision maker and they often know more about issues than the decision maker. Staff also answer phone calls and open mail for decision makers and keep lists of people who call or write the decision maker often. The people who frequently call or write are the ones to whom decision makers turn when they need to know constituent viewpoints on issues.

Assessing and Reporting

Regular and accurate assessments and reports from volunteers/customers will provide the external relations program with up-to-date information on public accountability progress. This information will serve as the basis for targeting special communication activities and events designed to enhance the effort of volunteers/customers. It is, therefore, critical that faculty and staff work with volunteers/customers to ensure that they maintain up-to-date information as to the result of contact activity with decision makers. Faculty and staff are encouraged to pass that information back to the administration for utilization in on-going external relations program assessment and fine tuning. All information received from decision makers through the contact program is important and should be appropriately communicated as quickly as possible. Shifts in positions, reactions to public sentiment, progress (or lack thereof) on legislative or congressional issues; and significant awards and recognition received by decision makers are examples of information to be passed back to the administrative team.

Summary

The land grant system must expand on-going external relations programs for public accountability. Targeting general and specific audiences, these programs must communicate and demonstrate impacts, values and benefits of research and education programs for local citizens. Never in the history of the land grant program has there been a greater need to increase our accountability among customers and decision makers.

A 1993 Gallup Poll, commissioned by the Experiment Station Council on Policy, documented that nearly half of the respondents did not know for certain that there was a land grant agricultural research program being conducted at a state university within their respective states. Many of our customers are unaware of the impacts and benefits of local programs. Many of our customers are unaware that those programs belong to the University. Furthermore, local, state and federal officials are generally unaware of programs being conducted in their districts. When asked to support programs, officials, at best, only are marginally aware of the University much less exhibit any detailed knowledge of its mission, programs, and benefits.

To increase accountability, therefore, is the primary goal of an external relations program, through which we must accomplish three major objectives: create an awareness of programs; communicate benefits of programs to all customers, potential customers, and officials at all levels; and inform potential customers how they may access needed programs.

Acknowledgments

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Comparisons of Extension Program Delivery Strategies for Small and Part-Time Farmers

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Abstract

A project was planned and implemented to seek innovative ways for reaching and providing educational opportu nities for small and part-time farmers. Selected program delivery methods were chosen for use, both individually and in combinations with other methods, in seeking the most effective means for actually reaching this special agricultural audience. A comparison was made between person-to-person methods and self-directed, non person-to-person methods comparing the farmer's receptiveness for receiving Extension information. Some of the non person-to-person methods were combined to form learning modules, and receptivity by the farmers was tested. Findings indicated that person-to-person methods were not as useful as the self-directed methods. The learning modules were shown to be especially valuable means for reaching these special audiences.

The Cooperative Extension Service has traditionally used a variety of methods for delivery of educational programs. For example, the demonstration was shown by Seaman Knapp to be an effective delivery method at the beginning of the twentieth century (Rasmussen, 1989), and this method continues to be a key method of program delivery (Bruening, 1991, Gor, 1988, Richardson, 1989). Yet, even though demonstrations, newsletters, meetings, and personal consultation may continue to be seen as key means of program delivery by Extension, some audiences may not find such methods practical for their use (Clement, 1994).

In today's society, with pressing social, economic, time, and other personal demands, audiences must be targeted in order to provide information effectively. Ritter and Welch (1988) made this point when they indicated that their market research made it obvious that many traditional means of delivery were not suitable for some audiences. For example, Obanayujile and Hillson (1988), found that part-time farmers in Virginia hold a much greater preference for personal visits than do full-time farmers, but considerably less preference for using the telephone to obtain information than the full-time farmers. In a Missouri study, Okai (1986) found that small farmers also held preferences for personal visits, and were positive regarding Extension publications as a means for receiving needed information.

Program delivery preferences of targeted audiences in North Carolina who identified themselves as part-time farmers were compatible with the previous studies cited, with personal visits most preferred and newsletters and demonstrations second and third, respectively. The self-directed learning methods found most popular were bulletin/ pamphlets and videocassettes (Richardson, 1993).

Reaching Small and Part-Time Farmers

While full-time farmers can generally be expected to desire and seek information from multiple sources, small or part-time farmers often find their options for receiving information more limited due to time, physical energy, lack of clout with input and supply dealers/representatives, or feeling a sense of being unimportant to information providers. Anecdotal information from Extension agents underscores the difficulty of providing information to these audiences via popular delivery modes such as meetings, tours, demonstrations, telephone calls, and office visits. Also, while studies have shown that one-on-one consultation has been effective for the individuals involved, Extension agents are finding this means of delivery increasingly difficult due to overall public demands for information, fewer personnel, and difficulty in contacting these individuals at convenient times.

A Better Way?

Even though difficulties have been encountered by Extension in effectively reaching smaller and part-time farmers, this audience is regarded as extremely important as a valuable contributor to individual and community social and economic well being as well as stewards of the environment.

Therefore, creative ways to reach these audiences effectively have become a challenge that needed special attention. Both creative and efficient means of delivery were thought to be potential answers to the difficulties of reaching this audience. Thus, a special program delivery project was developed which sought to fit appropriate subject matter to the needs of the target audiences, and to develop innovative delivery means for reaching those audiences.

Project Objectives

There were two primary objectives of this project. One was to determine the responsiveness of small and/or part time farmers to selected program delivery methods or combinations of selected methods for receiving specific information relevant to their farming operations. A second objective was to determine if selected non person-to-person program delivery methods are as effective in bringing about knowledge change as person-to-person delivery methods.

Focus of Project

This project was implemented in six North Carolina counties. Subjects ranged from strawberry production in two of the counties, insect scouting in two others, plant disease control in another county, and animal production practices in the other.

Part-time and small agricultural producers were identified in each of the participating counties, and were randomly selected from a list of those persons identified. In each location, Extension agents made a concerted effort to identify all individuals who were small and part-time agricultural producers, even though in some locations these individuals may not have been known by the agent. An attempt was made to identify anyone who was engaged in production for economic gain, regardless of resource availability. These identifications were made through interviews with other producers, market operators/managers, and personnel of other cooperating agencies.

When contacts were made with the selected individuals, a few elderly persons chose not to participate in the study. Also during the course of the project, some other elderly individuals also expressed a desire to remove themselves from further participation. These individuals who were over 70 years of age were the only ones to actually drop out of the study. They gave reasons such as they were just too old to do anything other than to have a token interest in farming, or were planning to quit farming altogether because of their age.

Altogether, 32 farmers participated and provided information regarding the program delivery methods used to provide them information as well as their change in knowledge resulting from the educational information provided.

Results

In a comparison of person-to-person, delivery methods versus non person-to-person methods, practically all of the participants were quite positive in their reception of non person-to-person delivery methods. For the person-to-person methods, participation levels were lower, so mixed results were indicated. Those persons who had depended on person-to-person consultation in the past were positive toward those methods, but many others simply did not show up for meetings or showed little interest in pursuing subjects via the telephone. Of the 32 program participants, 30 demonstrated a gain in knowledge at the conclusion of the educational programs as compared to their knowledge at the beginning, regardless of the means of delivery. On locally developed tests which contained from 11 to 15 questions, average knowledge gains of participants ranged from 15% to 60% for the counties involved. Another positive aspect of the program was the responsiveness of the individuals to participation in the study. Most individuals expressed appreciation for the special attention and especially for the efforts that Extension was making to serve them better. Many had little contact with Extension in the past, and had not depended on Extension as one of their primary information sources.

Non Person-to-Person Delivery Methods

In the comparison of program delivery methods, the non person-to-person methods included audiocassettes, fact sheets, miniature booklets, photographs, fax, novelty, bulletin/pamphlet, notebooks, posters, and videocassettes. The notebooks, audiocassettes and videocassettes, miniature booklets, and fact sheets were especially mentioned by the farmers as being viable means for providing information to them, when they otherwise would not likely have sought such information from Extension.

Combinations of Methods

In each county, some of the non person-to-person methods were used in combination to form a learning module, and the entire module was provided to the farmers for their assessment. The module containing strawberry information included a notebook with four localized fact sheets, photographs, two pamphlets, and four audiocassettes in which the agent described the information in the fact sheets and photographs. Other combinations were fact sheets, notebook, bulletin/pamphlet, and videocassette; miniature booklet and audiocassette; and fact sheets, audiocassette, and poster. These modules of information were especially well received by the part-time and small farmers, because they felt that they were receiving information that they could study in a self-directed manner, yet have essentially all of the information that they may need on a particular subject.

Person-to-Person Methods

For the person-to-person methods, which were personal visits, meetings, and telephone calls, people participated at low levels or simply were not interested in receiving information unless they requested it. Their reasons for not attending meetings ranged from having to dress appropriately to attend a meeting, or being too tired, to simply having more important things to do with their time. Person-to-person delivery for these individuals was not depended upon for receiving information from Extension. Generally, the farmers indicated that the person-to-person methods are not convenient means for receiving information.

Other Delivery Methods

The fax, as a program delivery method, was tested in only one county by three individuals who did not own a fax machine and indicated they never expected to own one. While each of their reactions to this means of delivery was positive, one responded so positively that he is purchasing his own machine in order to continue to receive Extension information. His testimonial following completion of the project indicated more than $800 per year savings in crop disease control by using the fax machine for obtaining information. Also, in this same county, a magnetized information card was developed as a novelty item for program delivery. The farmers also found this means of information useful. Finally, posters were used in another county, and little positive response was obtained from this means of information delivery. However, poster design and/or delay in locating the posters may have influenced the receptiveness of this means of information by the farmers.

Conclusion

Evaluation of the program included pre and post tests that were developed for each subject area. These were administered to the participants at the beginning and end of the program. With the data obtained, plus observation by agents, and anecdotal information received from the farmer participants, it was concluded that appropriate development of educational materials of a non person-to-person nature will be a valid means for educational program delivery by Extension in future educational programming for this audience segment. Altogether, one of the greatest indicators of the acceptance of the modular educational format for program delivery was that more than one-half of the farmers indicated a willingness to pay for these types of materials in the future.

Appropriately packaging information into learning modules and summarily making them available to this audience for their self-study appears to be a highly desirable mode of program delivery for both the farmers and Extension. This means of program delivery was found to be much more efficient and successful in educating these audiences than expending considerable time and other resources through person-to-person methods in which specific technology is transferred, but few long-term educational results anticipated.

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Concept Mapping and Frame Mapping: New Applications of Multidimensional Scaling in Computer-Assisted Content Analysis

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Brinberg and McGrath (1985) describe three orientations to research as basic, applied, or technological, depending on whether studies originate from emphasis on the conceptual, substantive, or methodological domains. As they note, research involves aspects from these three domains, including “(a) some content that is of interest, (b) some ideas that give meaning to that content, and (c) some techniques or procedures by means of which those ideas and content can be studied” (p. 14). Any one of these research orientations or styles holds inherent limitations; thus, science is best served by complementary and converging efforts along the plurality of routes.

While Brinberg and McGrath (1985) develop a Validity Network Schema (VNS) that elucidates the logical relations of validity at various stages within the research process and integrates the many uses of the concept of validity, this topic is beyond the scope of this paper. However, their well-developed argument that each of the three research orientations relate to, and ultimately advance, the others is relevant to this paper. For example, research focus on the methodological domain emphasizes “methods, designs, and research strategies used to examine concepts and phenomena” (Brinberg and McGrath, 1985, p. 26). Development and explanation of improved measurement instruments and methods provides additional research tools to researchers involved in both basic and applied research. Such is the focus of this paper.

Beniger (1987, p. S57) suggests that the future of communication research lies in “what could justifiably be called a new paradigm of cognitive processing, media framing, and active audience engagement in mass communication.” Other researchers such as Shoemaker and Reese (1991) have called for new directions of news media studies. Specifically needed, they suggest, are studies that “define the message itself as a dependent variable” (p. 8). A critical need in the field, furthermore, is the “need to develop precise and valid measures of content” (Shoemaker and Reese, 1991, p. 213).

The need for improved methods of studying news media framing has been noted by other researchers, as well. Various recent calls for improved methods are reviewed in Riechert (1996). For instance, Tankard et al. (1991) suggest that “framing appears to be such an important concept in news studies that some effective way of measuring it needs to be found” (p. 12).

A number of recent studies (Chew, Mehta, and Oldfather, 1993 and 1994; Chew and Miller, 1994; Chew and Kim, 1994; Miller and Riechert, 1994; Miller, 1994; Riechert and Miller, 1994a and 1994b; Riechert, 1995; Andsager and Miller, 1994; Riechert, 1996) demonstrate the usefulness of a new computer-assisted content analysis system that can be applied effectively to studying key themes and frames in text. These studies have been reported at meetings of the Association for Education in Journalism and Mass Communication (AEJMC), the International Communication Association (ICA), the Midwest Association for Public Opinion Research (MAPOR), and the Agricultural Communicators in Education (ACE).

The procedures involve comparison of relative prominence of substantive terms and development of multidimensional configurations---referred to as Concept Maps or Frame Maps---that represent the co-occurrence patterns of substantive terms in text. The content analysis procedures employ the VBPro family of computer programs, which were developed by Dr. M. Mark Miller at The University of Tennessee for content analysis of verbatim text. The programs include VBMap, a program for multidimensional scaling of co-occurrence data structure of terms in text. The programs now are available to researchers and hold enormous potential application in studies in communication and related fields (Miller and Riechert, 1994b; Schumann, 1995, personal communication; Riechert, 1996). Coded numeric data output of the VBPro programs is fully compatible with commercial statistical analysis packages and may be submitted directly to them as ASCII files.

The Concept Mapping procedures and the Frame Mapping Method, a special application of Concept Mapping, employ mathematical analysis (specifically the cosine coefficient as described by Salton, 1989; and Norušis, 1994) to derive a term-by-term matrix from which the principal components are extracted and used to produce configurations in any number of dimensions. The mathematical procedures also support hierarchical cluster analysis based on the cosine similarity measure. The procedures are described in more detail in Riechert (1996), Andsager and Miller (1994), and Miller and Riechert (1994).

Researchers may access the programs either via anonymous FTP at excellent.com.utk.edu in the pub/mmmiller directory under the file name VBPAK.EXE or at home page http://excellent.com.utk.edu/~mmmiller/vbpro.html. At this time the programs are developed for DOS-based computers. Before the self-expanded zip file is copied to the computer hard drive and run by typing in the name of the file a VBPro directory should be set up on the computer. The user's guide manuals include User's Guide for VBPro: A Program for Analyzing Verbatim Text (Miller, 1995b) and User's Guide for VBMap: A Program for Multidimensional Scaling of Concepts (Miller, 1995a). These are in ASCII format under the names VBPRO.MAN and VBMAP.MAN.

Riechert (1996) demonstrated that the Concept Mapping procedures, specifically the Frame Mapping Method, could be used to identify substantive terms that accurately represented different frames or issue definitions by two stakeholder groups (conservationists and property owners) involved in the ongoing debates related to wetland policy. Shifts in the relative prominence of the competing issue frames in Associated Press coverage over an 11-year period from 1984-95 were identified. In the study, the representative frame terms were specified mathematically from news releases generated by advocacy groups---such as the National Audubon Society and the American Farm Bureau Federation---that represent conservationists and property owners. Notably, therefore, the frames were specified from the stakeholder groups' own words.

In an earlier study, Miller and Riechert (1994) demonstrated how the Concept Mapping methods could be used to investigate differential theme emphasis in publications. The authors studied coverage related to pesticides in one general interest magazine (Time) and three specialized magazines (Audubon, Nutrition Today, and Successful Farming). In 9 out of 11 prominent themes, significant differences in relative emphasis were found among the four magazines.

In a study of 1984-94 Associated Press coverage of the Human Genome Project, Riechert (1995) used VBPro to compare relative emphasis of substantive terms. Generally, news articles tended to place strong emphasis on scientists and discovery, while providing little attention to related ethical and legal issues related to privacy and individual rights.

Method

The following sections will summarize portions of recent research of advocacy group and news media framing of public policy issues. This study (discussed in greater detail in Riechert, 1996) used computerized content analysis techniques to investigate (1) how competing interest groups framed the wetlands issue and (2) how Associated Press reflected those frames in news coverage over an 11-year period from July 1984 to June 1995.

Content analysis is described by Singletary (1994, p. 454) as a "research technique for the systematic analysis of text" and by Kerlinger (1986, p. 477) as "a method of studying and analyzing communications in a systematic, objective, and quantitative manner to measure variables."

While content analysis has been used for decades "to make valid inferences from text" (Weber, 1990, p. 89), recent developments in computer programs for assisting in content analysis hold enormous promise for increasing the scope and rigor of these methods (Singletary, 1994; Weber, 1990). The computer offers perfect coder reliability and "frees the investigator to concentrate on other aspects of inquiry such as validity, interpretation, and explanation" (Weber, 1990, p. 41).

To *frame* an issue is to define it by selectively emphasizing certain salient aspects, and correspondingly deemphasizing other aspects. Framing is a pervasive and powerful force in society and merits our best efforts at under-standing its impacts on news coverage, public opinion, and policy development in a democratic society (Tankard et al.1991; Entman, 1989; Coleman et al., 1993; Maher, 1994; Gamson, 1989; Gitlin, 1980; Tuchman, 1976a and 1976b; Goffman, 1974).

Entman (1991) suggests that four types of framing, in fact, occur---framing in *communicators,* in message *receivers,* in *text,* and in *culture*. This study focuses on framing by two groups of communicators or stakeholders in the wetlands debates, as well as representation of the competing wetlands issue frames in the text of news coverage, represented by Associated Press. We are interested in studying framing because it is so pervasive and powerful, while also it is so subtle that people practice it everyday without realizing it. If selective definition or framing of issues does occur, it would occur with regard to issues (1) that are complex, (2) that involve diverse stakeholders, and (3) that support a multiplicity of interpretations, viewpoints, and potential policy resolutions.

The topic of wetlands meets all of these criteria and therefore is ideal for supporting a study of framing.

1. **Wetlands is a complex topic.** Scientists themselves cannot agree on a definition of wetlands. How many days in a year should the ground be wet to qualify as area as a wetland? It is not so simple, according to scientists, yet policymakers have attempted to reduce the definition to this one criterion, ignoring other factors such as plant and animal life.
2. **Wetlands is an issue involving diverse stakeholders.** A conservationist will tell you that one-third to one-half of the nation's endangered species depend on wetlands for survival, and that less than half of the country's wetlands at the time of George Washington remain. A property-owner will argue that he or she should have the right to drain or fill wetlands on private land in order to realize profit or pleasure, whether by planting soybeans, or building a dream home. A developer will argue for the right to put in a mall, a golf course, an airport, a sports arena, or a luxury high-rise.

3. **The topic of wetlands supports a multiplicity of viewpoints.** Things get complicated when the proposed mall site is the nesting ground of the clapper rail, or the intended highrise site is the habitat of the fragile Florida Key Deer. Should regulations protect wetlands? How shall we determine what is a wetland? Should a federal agency make this determination? Should states make it? Should landowners be compensated if their land uses are restricted and thus their property values are decreased because of such regulatory protection?
4. **The topic of wetlands also is an extremely relevant topic.** Wetlands are critical to water quality, flood prevention and control, and wildlife habitat.

The rationale supporting this study is the expectation that framing, or differential definition of an issue, would tend to occur among stakeholders in the complex public policy issue of wetlands. If we can identify and measure these stakeholder frames in a precise and rigorous method, we can then investigate the way these competing frames are represented in news coverage over time. As Entman (1991, p. 7) notes, "News frames are constructed from and embodied in the keywords, metaphors, concepts, symbols, and visual images emphasized in a news narrative. Since the narrative finally consists in nothing more than words and pictures, frames can be detected by probing for particular words." Learning to better understand news framing is relevant to a number of different theoretic areas, as we will discuss.

The methodology used in this study is Concept Mapping, and specifically a unique application of Concept Map-ping introduced here as Frame Mapping. Concept Mapping provides a method for mathematically determining the terms that form the central themes in text. Frame Mapping, a special application of Concept Mapping, provides a method of identifying terms most representative of issue frames by different groups.

The following steps were taken:

1. All news releases that mentioned *wetlands* from the PR Newswire database in the DIALOG service were downloaded. This amounted to 1,226 articles. From these were identified those news releases from identifiable conservation and property-owner advocacy groups.
2. A computer-assisted content analysis was conducted, using the VBPro family of programs, which were designed for content analysis of verbatim text. With VBPro a list of all terms in the 102 news releases from the two groups was generated. The list was ranked by frequency of occurrence of the terms.
3. For terms that occurred frequently and that were meaningful to the policy debates related to wetlands, a matrix of cosine coefficients was constructed using VBMap, a program within the VBPro family that was designed for multidimensional scaling of terms and co-occurring terms and phrases. The term-by-term matrix is calculated from a document-by-term matrix, using the cosine. The formula for the co-occurrence cosine coefficient, with A and B representing the respective terms, according to Salton (1989), is:

   COS = [E (AB)] ÷ SQUARE ROOT[(EA2)(EB2)].

   From the matrix of cosine coefficients the principal components were extracted (Coxon, 1982; Shepard, 1980; Kruskal, 1977) and the terms were plotted visually in a dendogram tree-type diagram generated through hierarchical cluster analysis in SPSS. Romesburg (1984, p. 2) describes cluster analysis as “a generic name for a variety of mathematical methods, numbering in the hundreds, that can be used to find out which objects in a set are similar.” Hierarchical cluster analysis is described in Bernstein (1988), Press (1972), Ward (1963), and Norušis (1990).

4. Then, the news releases from the two types of stakeholder groups were adapted for Frame Mapping. A unique constructed source identifier term was inserted into each news release to signify whether the release was from a conservation advocacy group or a property-owner advocacy group. The matrix generation procedures were repeated **with** the additional two code terms, and a dendogram was generated to show which terms occurred with each code identifier term. By clustering closest to each code term, many of the various terms were revealed as representing the wetlands issue discussion by one group but not the other stakeholder group.
5. Terms that clustered together were grouped together, and the matrix generation procedures were repeated to produce a streamlined or more concise dendogram as well as a multidimensional scaling configuration or Frame Map of the term co-occurrence data structure. The Frame Map was produced in three dimensions, because more dimensions are difficult to visualize. The VBMap program computes the coordinate values for any number of dimensions, which are used in constructing the Frame Maps or multidimensional scaling configurations. As noted by Young (1987, p. 13) multidimensional scaling “is a method for analyzing data that takes an essential incomprehensible matrix of data and represents it in a spatial fashion that is easily interpreted.”
6. Frame terms identified through these procedures were used to investigate various trends and relationships in news media coverage over time. For this part of the analysis all the news articles that mentioned wetlands that were released by Associated Press from 1984 to 1995 were downloaded. This was a total of 1,688 articles. Eliminated from these articles were those discussing *wetlands* outside the United States. Retained for the analysis were 1,465 articles.
7. These news articles were analyzed, using VBPro searching and coding procedures, and statistical tests conducted in SPSS, to examine relative frame prominence over time and relationships of frame prominence among selection of competing stakeholders as news sources and type of news source attribution.

Rationale

Why specify the terms that reflect one group’s definition or framing of an issue? In order to use those terms to analyze---precisely and rigorously---news media framing of policy issues over time. Based on the operational definition of an issue frame as the frequency of occurrence of the terms most representative of an issue definition by a particular stakeholder, various propositions related to news coverage and media framing were addressed.

For this analysis, using the terms specified in the Frame Mapping application of Concept Mapping, several comparisons were made.

1. We are interested in studying shifts in dominance of competing frames over time. Why? Because we are interested in better understanding ways news framing occurs. And the need for more precise and rigorous methods of studying news framing has been identified by researchers such as Tankard, Gamson, Maher, and others.
2. We are interested in investigating relationships between the use of different stakeholders as news sources and representation of the stakeholder’s particular issue frame in the news media.

Why? Because we are interested in better understanding influences in media content, including extramedia influences such as news sources. Again, the need for more precise methods for studying news content has been identified by Shoemaker, Reese, and others. We agree with Beniger's assessment that news framing is central to the new processing paradigm. Framing, we recall, occurs in four locations:

1. Communicator
2. Text
3. Receiver
4. Culture

Framing is a pervasive, powerful force in a democratic society, and holds enormous implications for the role of news media in society. As we understand framing better we may come to better understand that role.

Results

Frame Mapping analysis conducted with the advocacy group news releases revealed distinct issue definitions by the conservation and property-owner groups. These are apparent in the cluster analysis dendograms and the Frame Maps.

The analysis specified 29 terms for each frame---an equal number that clustered with the code terms at equal levels of proximity. Notably, the terms came from the advocacy groups' **own words.** The terms represent each stakeholder frame effectively and precisely.

The terms specified to represent the conservationist frame in the wetlands debates included the following terms: River, Natural, Wildlife, Species, Conservation, Watershed, Everglades, Endangered, Society, Project, Protect, Bird, Bay, Acres, Threatened, Birds, Habitat, Fish, Ecosystem, Migratory, Ecosystems, Area, Rare, Earth, Forests, Preserve, Restore, Research, and Protected. These terms suggest that in the wetlands debates, conservationists are interested in *conservation* and *preservation* of *natural areas* such as *forests* and *rivers;* they want to *protect* and *restore* diverse *ecosystems* that serve as *habitat* for *endangered* and *threatened species* such as *migratory birds, fish,* and other *wildlife*.

The terms specified to represent the property-owner frame in the wetlands debates included the following terms: Farm, Farmers, Property, Rights, Agriculture, Regulations, Legislation, Private, Landowners, Compensation, Agencies, Support, Legislative, Wetland, Statewide, Definition, Agricultural, Owners, Ranchers, Supports, Lawmakers, Balance, Court, Issue, State, Congressional, Business, Laws, and Law. These terms suggest that in the wetlands debates, property owners are concerned more narrowly with the *rights of private property owners,* including those in the *agricultural community;* they seek *legislative* reform of *regulations,* especially related to *wetlands definition* and *compensation* to affected *landowners* such as *farmers* and *ranchers*.

In the news articles about wetlands released by Associated Press meaningful comparisons of the relative frame prominence were possible because of the balanced number of equally representative terms. Comparisons using the frequencies of the frame terms in analysis of the Associated Press articles showed:

1. Shifts occurred between the relative prominence of the Conservation Frame and the Property-Owner Frame over time. The wetlands debates shifted from being a conservation issue in the news media in 1984-85 to being a property-owner issue in the news in 1994-95.
2. Attribution to particular news sources in news media was related significantly to relative prominence of that stakeholder's frame in the news article. This was demonstrated at three levels or conditions of attribution. In news articles where conservation or property-owner groups were **mentioned,** their wetlands frame---measured by occur-rence of their frame terms---was presented prominently. This was even more pronounced in articles in which representatives of the groups were quoted indirectly, and it was most pronounced in articles in which either stakeholder was quoted directly as the first quoted news source in an article.

Implications

This study holds a number of implications that suggest and support further study:

1. Regarding the wetlands issue, competing stakeholder frames have risen and fallen over time in the news media.
2. Framing---or differential issue definition based on selectivity and salience---does occur in a measurable way with complex public policy issues involving multiple stakeholders. This holds implications for development of framing theory.
3. News sources have powerful influences on the content of the news media. This holds implications for theory of news content and media agenda-building. Further, it suggests that news sources with high visibility to journalists, such as official sources, have the advantage in getting their views voiced through the news media. Journalists may find in this a challenge to identify diverse sources that will discuss the full range of policy debates, alternative solutions, and views to the attention of the public.
4. Concept Mapping is an effective method for identifying keywords and central themes in text.
5. The Frame Mapping Method is an effective method for specifying terms that represent divergent frames from different sources.
6. More importantly, Frame Mapping is a more precise and rigorous method than other methods available for investigating framing by communicators and in text.

Furthermore, the methods may be used to investigate any number of propositions related to framing. These methods may be used to further understanding in a number of areas, such as media agenda-building and theory of news content, policy agenda-building, and other promising theoretic areas (Lang and Lang, 1983; Kennamer, 1994; Riechert, 1996), as well as the new processing paradigm suggested by Beniger (1987).

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View from the Other Side
(An anecdotal and irreverent look at what the news media REALLY says about us)

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Not long after I took my present position as a news writer with the University of Kentucky College of Agriculture, I attended a meeting somewhat like this one where a guest speaker from a newspaper spoke to us news relations types about how much he loved getting our news releases, and how useful they were, and how he'd love to have even more of them. He did say he wished we'd localize them a little more for his particular market, and he did say he wished we wouldn't use so much educational jargon and just assume that the rest of the world knew what we were talking about. But by and large, he said we were doing a great job and just keep those news releases coming to him.

Having just arrived on the job at UK after spending 15 years with a real newspaper, *The Memphis Press-Scimitar,* in Memphis, TN, which had died an ignoble death going out of business a few months earlier -- it wasn't my fault -- I kept my mouth shut. My colleagues probably wish I would keep my mouth shut now. But I did wonder then and asked myself the question, "Where in the world did this guy come from? His newspaper is absolutely nothing like the one I had just come from." I used to receive 200 plus pieces of mail -- press releases -- every day of the week. And I didn't have a secretary to even open the envelopes. The last thing I would have told anybody was to send me one more piece of mail. Of course, I realized he was just being politically correct. You don't go to somebody else's conference and tell them how BAD they are. You don't go to a bunch of PR types and tell them what the newspaper news room really says about them.

Well, I don't think I will either. But I assure you it's different from those remarks that guy I was quoting earlier said. I'm a word person, not a visual person, so I don't have any visual aids -- except for these three index cards that will give you an idea of what newspapermen really say about a lot of us print media PR types -- and since I've been on your side of the fence for almost 13 years now and I'm close enough to retirement age to avoid retribution (I hope), I'll let you see what my ex-comrades had to say about my present comrades.

First Card: "Sumbitch." That, I'm sure most of you good ole boys know -- but maybe a few Yankees out there don't -- means son of a bitch in southern. I did tell you I was newpapering in Memphis, TN didn't I? Second Card: "Idiot." Third Card: "Incompetent." Now, before you go getting mad at me because of what some of my cohorts used to say about you, let me tell you quickly what those guys had to say about Republicans: Same three cards. Democrats: Same three cards. Our bosses, the editors: Same three cards. I could say the same about police, bank presidents, real estate executives, athletes and just about everybody else the newspaper covers, but I won't in the interest of time.

What I'm saying is that newspaper writers are usually an irreverent bunch who seem to have a rather limited vocabulary.

They despise those big words agricultural science writers love to write about. Especially the ones the science writers say everyone in the business will know the meaning of.

They don't LIKE anybody they ever have to write about, but they TOLERATE us and most of the other people they have to write about more than most other organizations I know.

They will use us to get stories they want, and they know -- and don't care -- that we will try to use them to get stories we want printed too.

They will think the stories they want are good -- and ours are not, but will tolerate us to get the stories they want. We will think our stories are good -- and theirs are not, but we will tolerate them to get our stories in print more often.

Newspaper people tend to drink a lot, and they will sit down with you and you both will drink a lot, and they will tell you war stories and laugh at your war stories. But you will not be buddies. You must know they will later write down any inadvertent remarks you make about anything that might be useful in a story later. You must realize that for a newspaper writer, no comment is OFF THE RECORD unless it is clearly agreed before the comment is made that it is off the record. Party time is not an exception to that. Personally speaking, I can't tell you how many times people have told me "That comment was off the record" after having said something that they felt might come back to haunt them. Fortunately for those people, their comments simply were not newsworthy. Or perhaps, if I felt somewhere down the pike the source might provide a bigger story, I might feel charitable.

Speaking of drinking, when I was business editor I had many, many luncheons, dinners and even a few breakfasts with bank presidents, business leaders, home builders etc., which involved the famous three martini lunch. I didn't have much of a food bill during that time. That was during the time when most newspapers allowed reporters to be wined and dined. Even after my newspaper made a new policy to not allow most reporters to accept wining and dining from people they were going to write about, they allowed the business editor to be the exception. Anybody know why? Because most bank presidents, business executives, etc. didn't have time for interviews EXCEPT during meal time; and second -- this I believe is the real reason business leaders insisted on meeting at lunch -- if they took a reporter out for lunch, BOTH meals became a business expense. I quickly learned that at least for me a three martini lunch does NOT enhance the ability to ask penetrating questions. Fortunately scotch did not have the same effect. Three martinis also did not enhance the business person's ability to ANSWER penetrating questions.

Now that I've told you what my newspaper comrades said and thought about PR types, let me tell you how I felt about them. I really did have positive feelings about most of them.

They helped me do my job mostly.

Sometimes they hindered me from doing my job.

Most of the time they told me the truth.

Occasionally, a few lied to me -- once. I'm reminded of a quote attributed to Disraeli. He said there were three kinds of lies: "Lies, damned lies, and statistics!" To which I reply, "Statistics don't lie, but liars statist."

My all-time favorite public relations specialist recently retired from my alma mater, Memphis State University, now University of Memphis. Once I had to ask him a very difficult question, one that my editor, had told me earlier to not let anyone go “off the record” on this subject. I truly don’t remember what the issue was now. But Charlie said to me, “Jerry I can only speak on this subject if it’s off the record.” I told him I couldn’t accept that answer this time. Everything had to be on the record. Charlie prided himself on never having to say “No Comment,” but he was under orders and so was I. He said something to the effect, “I am directed to not respond to questions on this subject for the record.” I asked a related question, got the same answer, called my bosses and told them. My boss was impressed that Charlie wouldn’t lie, even though he wouldn’t answer the question, and Charlie didn’t even didn’t try to convince us to not run the story. The boss decided to not embarrass him by even quoting his non-answer.

I relied on university news specialists when I was education editor and business editor to help me cover marginal stories. As a one-person education department and later a one-person business department, I spent most of my day covering what I considered the big story of the day. I spent an hour opening those 200 pieces of mail and dumping most of them in the basket. But the marginal stories needed covering too. I found the PR news writers who would return information by 10 a.m. instead of responding at 11:45 p.m., and I relied heavily on them to return the information back to me. I didn’t require formal prose on letterhead paper.

When I found a news release that was newsworthy, well-written, locally oriented and worthy of being printed in its entirety, I ALWAYS rewrote it. Why, you ask? Because I knew the same story was being sent to all newspapers in the area. My editor didn’t want the exact same words in our paper that were going to be used in the little weekly down the road. I agree with his philosophy on that. One criticism I still hear about our big daily papers is that they never use our stuff exactly as we write them. I still understand why.

Is There Life After Budget Cuts? Establishing a Fee-Based Publishing System

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The Department of Ag. Communications at Texas A&M has long been the publisher of both Extension Service and Experiment Station publications. Historically, both agencies have supported the department with personnel and operating funds. In the last year, however, the Experiment Station has stopped funding a number of functions that had been centralized. In the last round of budget cuts, last summer, it was decided that the Experiment Station would no longer fund the printing of research publications. Instead, publishing costs would shift to individual authors and their departments.

This paper will explain how the elimination of funding for Experiment Station publishing has affected the Department of Ag. Communications, and how we have responded by establishing a fee-based publishing service for researchers and scientists.

Shared Resources with Joint Funding

In the past, Experiment Station authors produced publications in a variety of numbered series, including Progress Reports, Consolidated Progress Reports, Department Technical Reports, Bulletins, Miscellaneous Publications, etc. These originated with individual researchers, with department heads, or with directors of the 18 research centers across the state. In recent years Ag. Communications has produced 20 to 30 Experiment Station publications each year. In addition, we produce 300 to 400 Extension publications annually.

Printing of Experiment Station publications was paid for with a central fund within Ag. Communications, so authors never saw a bill. In addition, Experiment Station contributed 30 percent of the basic operating expenses within the publications section, with Extension contributing 70 percent. Operating funds are, of course, used for everything from computers to paper clips.

In the personnel area, Experiment Station funded one editor, a half-time artist, one typesetter and half the position for a second typesetter. Extension funds four editors, two artists, and half the position of the second typesetter.

The synergy that existed within Ag. Communications made the most effective use of funding from both agencies. For example, personnel funded by Extension might at times work on Experiment Station publications. A computer purchased with Experiment Station funds might also be used for Extension work. Shared resources gave us the flexibility to manage people and work to the benefit of both agencies.

Effects of Lost Funding

How did the end of centrally funded research publishing affect the personnel and operating budgets within the publications section?

The editorial position was lost. The half-time artist was reassigned (on paper at least) to support news and marketing rather than publications. The full-time typesetter has been moved to a secretarial position, although she is available to help with typesetting as needed. The second typesetter has lost funding for half her salary.

And of course the publications section lost 30 percent of its operating funds.

It might seem that with the loss of so many resources we should have simply abandoned the idea of continuing to produce research publications. But as strange as it may seem, we really didn't have that option because of the personnel situation in our pre-press area (artists and typesetters). While the Experiment Station contributed about 40 percent of pre-press salaries, those people spend roughly 90 percent of their time on Extension publications. It would have been nice if Extension had stepped in to make up the difference in those salary dollars lost, but Extension's budget has tightened also, so that didn't happen. Because we are dependent on those pre-press personnel to handle Extension publications, we had to find a means of paying their salaries. Offering a fee-based service for Experiment Station publishing seemed the only way to do that. And, if successful, such a system might also recover some of our lost operating funds.

A second reason for continuing a service for Experiment Station authors was our belief that agricultural research **should** be published. Our department is familiar to authors; we felt they would continue to welcome our help in getting their materials produced professionally, and that a properly structured and well-managed fee-based system could succeed.

The Mechanics of Fee-Based Publishing

The first decision we faced was how to set up such a system. We knew it had to bring in enough money to make up for lost salary dollars, that it had to mesh smoothly with our ongoing Extension publishing, and that it had to be attractive enough to research authors to overcome the shock of having to pay.

This is the system we established. As leader of the publishing team, an author will contact me when he wants to produce a publication. I will hire a free-lance editor to work on the manuscript. After editing, the job will go to our artists and typesetters for pre-press work. I will get a printing estimate from either the Extension print shop or the university printing center, depending on the specifications of the job. I'll supervise the printing and see that the finished publications are delivered to the author. Experiment Station publications will no longer be stocked in and distributed from the publication warehouse. Instead, the author will be responsible for distribution.

The author will pay Ag. Communications for the editor's fee and our pre-press production fee. We will in turn pay the editor. The printer will bill the author directly.

Once we knew how the system should be structured, it was a matter of putting all the pieces together.

I began by researching current commercial costs for typesetting, graphic design and page layout. In our area, those services from commercial printers average \$20 to \$22 per printed 8 1/2 x 11 page. We settled on a fee of \$15 per page to be competitive.

Without an Experiment Station editor on staff, we knew it would be necessary to rely on contract editors. Luckily, there are several available in the community. I spoke with three who are interested in being called as needed. Another agency at Texas A&M uses free-lance editors extensively; knowing how they pay editors, I was able to set a comparable rate of $3.50 per manuscript page. For this fee the editor will be expected to correct the original manuscript, confer with the author as necessary to reach agreement on the final version, and proofread typeset pages until camera-ready copy is completed.

I also worked with Experiment Station fiscal officers to be sure our system would fit with their purchasing procedures, and to get a new account set up to handle monies paid to and from Ag. Communications. Finally, I wrote contracts to use with free-lance editors and with authors. These contracts spell out everyone's responsibilities, as well as the fees to be paid.

Besides just the printing of publications, we felt Ag. Communications had another very important service to offer- the electronic dissemination of research information via the Internet. Steve Hill in our department is setting up links to libraries and other information networks that we hope will appeal to researchers as a way of sharing their information with the world. Some authors may decide to forego printing and simply publish electronically. We'll charge a fee for that service as well, though it hasn't been determined yet.

Overcoming the Psychological Obstacles

Developing the mechanics of the fee-based system has been just part of the task. The other part is dealing with authors, and trying to be both diplomat and salesman at the same time.

Early on, when the word got out that publishing costs would now be borne by academic departments and research centers, several faculty members called me. Some were irate that the administration would no longer pay to publish their research; some were more philosophical about it; but all felt that an unwarranted burden had been forced on them. They'd never had to bear publishing costs, and weren't used to budgeting for them.

But the most difficult obstacle was psychological. Any time someone else pays for a service you receive, and you never have to concern yourself with the cost, it's easy to start thinking you have a "right" to that service. That's the attitude of many researchers. So I've had many a conversation in which I've tried to soothe ruffled feathers, sympathize, reassure that we will help them find the most economical way possible, and at the same time get them used to the idea of paying for it.

I've gotten printing estimates for a number of authors already, and most are shocked at the cost. One author has spent years photographing toxic plant tissue through a microscope. His manuscript contains 541 halftones, and the printing estimate is about $12,000 or $12 per copy. Every one of those halftones is dear to his heart, and can't be eliminated, but now he's got to find $12,000 to print them.

And of course it's the cost of printing that is the stumbling block. On the job I just mentioned the editorial fee is only $511 and our pre-press production charge is $2,650--small in comparison to the cost of printing.

Will Our System Succeed?

It's too early to tell how much business we'll have. Some authors likely will be discouraged from having publications printed and will simply submit some of their work to journals. Some will decide they don't need the help of professional editors, typesetters and artists and will do their own page formatting and find a cheap printer or copy shop. However, I believe that many will begin to include publishing costs in their research budgets and grant proposals, and that they'll come to us because they appreciate the value we can add and the professional products we can produce.

The "catch-22" for us is that we need enough work to pay pre-press salaries, but too much work would make it impossible to meet our Extension publishing commitments. I expect we'll learn a lot in this transitional year. Certainly we'll learn how willing authors and their departments are to shoulder publishing costs and whether they will continue to look to Ag. Communications as their partner in publishing agricultural research.