

What Are Agriculture Industry Professionals Trying to Tell Us? Implications for University-Level Agricultural Communications Curricula

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Abstract

Two recent activities have solicited the input of professionals on the future of agricultural communications within the agriculture industry. This paper reexamines these industry-based information and research activities for potential themes that could impact the current and future direction of communications-related activities within the agriculture profession. A reexamination of the outcomes of these two activities may provide insight and guidance for curricular and degree changes being considered by university-level agricultural communications educators. The four themes identified and discussed in this article are as follows: (a) the rapidly changing communication needs, wants, and expectations of the agriculture industry; (b) the new stakeholders of agricultural communications activities and products, and their diverse communication needs, wants, and preferences; (c) the shortened response time for communication-related activities; and (d) the increasing importance of the image of the agriculture industry and agricultural communications professionals. The themes that have emerged from industry through this study underscore the importance of researching the employee needs of the 21st century agriculturalist and agricultural communicator. These results may also positively influence university-level curricula and degree programs both within and outside of agricultural communications.

So What?

Agriculture is transforming itself in this information age. Do we have a clear understanding of this transformation? What are the trends, issues, and problems that agricultural and applied communicators need to address? How do we prepare college students for successful careers in the wake of this transformation? Examining recent activities involving industry professionals can help answer these questions, provide insights, and assist us in making necessary adjustments within university-level agricultural communications programs.

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For university-level agricultural communications educators, helping people make connections to the broad agriculture industry is part of the job. Another primary role is to prepare individuals for entry to and advancement in the agricultural communications profession in the private and public sectors.

The relationship between industry and academia is discordant at times. Each entity has different opinions as to what is important when preparing future agricultural communicators. Students and employers desire skills-based courses to aid in an efficient transition from the classroom to the work force, while academia places a higher value on theory-based courses to prepare graduates for advanced coursework and research (Tucker, Whaley, Whiting, & Agunga, 2002). From a holistic standpoint, a combination of theory and skills/practical applications will prepare students to proceed in either direction.

Academia's Perspectives

When looking at the development of the agricultural journalism and communications discipline, Evans (1975) reminded us that other agricultural disciplines have had some of the same growing pains as they tried to find and define themselves. Early opponents of teaching agriculture at the college level argued that agricultural instruction was not worthy of college-level credit (Wheeler, 1932). This may have been due to the lack of a body of literature, since this did not appear until 1850 or later. The early teachers of agriculture did not have a specific body of research or a well-defined discipline as a guide; they had to develop those (True, 1929).

Despite this inauspicious beginning, agricultural journalism and communications has developed into a full-fledged discipline that encompasses teaching, research, and service (Tucker, Whaley, & Cano, 2003). During the first half of the 20th century, this new discipline defined itself and contributed to the success of the land-grant university system (Tucker, 1996). The first course in agricultural journalism was taught in 1905. In the 100 years since then, university-level undergraduate and graduate degree programs in the discipline have evolved. Today, students graduate with degrees in agricultural journalism/communications from departments in institutions across the country.

The discipline still faces challenges today. Evans (1975) stated that there is an obligation for careful scholarly attention within the discipline. Twenty-one years later, Tucker (1996) echoed that conviction when he encouraged the discipline to reconnect with current social science theory. In 2002, Whiting warned the profession that it is perilous to choose to ignore current trends and issues. Doerfert (2003) asserted that the trends can be identified, and

that by anticipating change and moving in that direction, the profession can position itself for success. In response, Tucker (2004) argued that bureaucracy in universities offers at least one advantage: It allows for slow change, so that agricultural communications educators can take their time modifying curricula, restructuring research, and deciding how best to serve society and their clientele.

Industry's Perspective

American agriculture has evolved significantly since the days of our founding fathers—when nearly everyone was involved in production agriculture—to today, when few are directly involved in production practices. In summarizing agricultural census data for the past 90 years, Allen and Lueck (1998) provided the following snapshot of this change:

As recently as 1920 there were over 6.5 million farms, averaging just 149 acres per farm. At the same time, nearly one-third (30.1 percent) of the U.S. total population lived on farms By 1992 farm numbers had fallen to less than 2 million farms, and the average farm size had more than tripled to roughly 500 acres. Similarly, by 1992 less than 2 percent of the U.S. population resided on farms. (p. 344)

America and American agriculture have come a long way since the 1700s, when word of mouth and limited print sources were the only means of communication. However, thanks to new technologies and production practices and the emergence of the global market, the American farm has transformed over the past century from a small, family-based operation into a corporate or global business that relies on technology and information to operate successfully (Martinez, 2004). "Technology has had a dramatic impact on agriculture over the past century. From having a farmer feed less than 10 people to over 212 is a significant leap forward that is a result of technological advances" (Stewart, Moore, & Flowers, 2004, p. 63). Knutson, Penn, Flinchbaugh, and Outlaw (2007) stated:

Technology has long been recognized as a major economic force affecting agriculture. When occurring incrementally, technological advance cumulatively increases efficiency with widespread benefits. . . . In addition to incremental advances, a few major technological leaps have profoundly impacted agriculture, with mechanization, hybridization, commercial fertilizer, pesticides, Bt corn, and glyphosphate-tolerant cotton and soybeans being notable examples. (p. 4)

Technological advancements in communications also flourished in the 20th century, adding telephone, radio, television, computers, and the

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Internet to our everyday means of communicating. As new technologies have emerged, the communications network among agriculturalists has been enhanced, and the agribusiness sector has utilized these new innovations to improve production and marketing. "Innovations in information technology have not only facilitated the adoption of new production methods by farmers but have had a great economic and social impact on rural life" (Gardner, 2002, p. 27).

While it is unclear which is the cause and which is the effect, the arrival of the information age and emergence of the consumer influence on agriculture are shaping today's American agriculture industry. Dimitri, Effland, and Conklin (2005) stated that the most influential trends transforming American agriculture have been technological developments, the rise of consumer influence in agricultural production, and the increasing integration of American farming into national and global markets. Streeter, Sonka, and Hudson (1991) argued that in an increasingly consumer-oriented business environment, information technology has not only enhanced but also hastened coordination strategies between various levels of the agribusiness sector. The authors added that information technology has made it easier for the consumer to see a wider range of product attributes (that previously were not always apparent to consumers) and given consumers at least the illusion of control. Information technology has also helped retailers discover the tastes and preferences of consumers (Streeter, Sonka, & Hudson, 1991).

The Farm Credit Council (2006) acknowledged that changes in agriculture have resulted in "a more complex, more diverse, and more consumer-driven agricultural and rural environment, rich in both challenges and opportunities" (p. 3). The report added that:

Technology continues to transform this generation's agricultural business just as the tractor and hybrid seed transformed its grandparents'. Farmers today carry on a legacy of innovation. The Internet represents just one example. More and more, agricultural producers use the Internet for marketing information, to obtain farm inputs, and to seek other services. (p. 6)

As agriculture continues to evolve from the trends that are shaping the direction and competitiveness within its various sectors, information technology is likely to be both a driving force and a tool that facilitates change. One could argue that the changes in agricultural technology would not have been so widespread and popularized had it not been for agricultural communicators. New equipment, production practices, and genetic innovations were introduced to the public by agricultural

communications professionals via radio and television commercials, journal articles, and agricultural trade shows. It was through the assistance of agricultural communicators that the technological advancements in agriculture were widely accepted, enabling agriculturalists to tailor products to consumers' needs and desires.

The agricultural communications profession has historically attempted to keep pace with these technological advancements and incorporated these changes into the university curriculum. However, the pace of change in agricultural communication curricula may need to increase to match the pace of change in agriculture. A Farm Credit Council (2006) report concluded with the following challenge:

Rural America isn't THE American Gothic anymore. The forces of globalization and consolidation have reshaped the food system and rural America. The pace of business and the pressures of farming have accelerated. The population is more diverse. As agriculture and rural America change, the businesses that serve them must adapt.
(p. 25)

Changes Influence Curriculum

Agriculture, along with information and communication technologies, is changing every day, making it more and more challenging to keep agricultural communications programs current. Nevertheless, it is the responsibility of higher education and agricultural communications programs to observe and keep pace with the ever-changing workplace to ensure that they can provide the preparation and skills that produce high-quality graduates. This is not a task that can be completed simply by observing the processes and methods of current agricultural communications students. It should also involve those who have already completed their coursework. The curriculum revision process should be a collaborative effort involving students who are directly associated with the studies in question, teachers who both teach the skills and administer the curriculum standards, and professionals who use these skills (Wrye, 1992). In today's society, both blue- and white-collar workers, including agricultural communicators, must possess an array of skills and competencies. The changes in the knowledge and skills required of an agricultural communicator can be attributed to technological advancements in science and agriculture, as well as the changing demands of the workplace.

The agricultural communications profession has periodically examined its evolution in its attempts to keep pace with the transformation of American agriculture. This effort is not new to higher education. Baker,

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Boser, and Householder (1992) concluded their review of the impact of technological transformations on the workforce with the following thoughts:

...workforce demographics and the history of industrial education leads to the conclusion that major philosophical and curricular stress points do indeed coincide with the wave cycles of technological transformation. As each wave of economic activity required different skills of its workforce, societal and educational forces attempted to reform to meet the perceived needs. (p. 13)

Agricultural communications programs should frequently review the status of their graduates to more effectively determine the merit of the existing curriculum (Akers, 2000). Bailey-Evans (1994) conducted one of the most recent studies of agricultural communications curriculum advancements. She addressed the changes and revisions needed in the curriculum to keep pace with technological and industry needs. She recommended the agricultural communications curriculum be continually expanded and updated to reflect the technological advancements of today and the future. "The aggressive changes in technology indicate a pressing need to examine the curriculum in an effort to make it applicable to students and their future employers" (Bailey-Evans, 1994, p. 1).

Purpose

Two recent activities in the field have solicited input from professionals on the future of agricultural communications. This paper reexamines these industry-based information and research activities for potential themes that could impact the current and future direction of communications-related activities within the agriculture profession. The first activity that was examined was the result of an industry needs assessment conducted in advance of the 2004 National Agricultural Communications Summit held in Lake Tahoe, NV. The second activity was the result of a graduate-level contemporary issues class that utilized 24 guest speakers—all leaders in the agriculture industry—who addressed the issues, trends, and problems they saw as important in agriculture today. While the majority of these speakers presented via telephone conferencing technology, each speaker (on site and at a distance) was recorded by the instructor. A reexamination of the outcomes of these two activities may provide insight and guidance for university-level agricultural communications educators who are considering curricular and degree changes.

Methods

Industry Needs Assessment

On June 23-24, 2004, university-level agricultural communications and journalism faculty from across the United States convened in Lake Tahoe, NV, for a National Agricultural Communications Summit. To stimulate the discussion and bring industry input to the summit without the actual involvement of industry professionals, a study entitled *A National Needs Assessment for the Preparation and Development of Agricultural Communications Professionals* (Doerfert et al., 2004) was conducted by the summit planning committee. The purpose of this study was to describe the current status and future needs of the agricultural communications industry to summit participants.

The study population was identified by accessing the list of companies listed in the *AgriMarketing 2003 Marketing Services Guide Issue*, a well-known directory in agriculture, as well as the lists of sponsors for the National FFA Foundation and the National 4-H Foundation. The sampling frame was created by reducing the study population to include only those companies that had a minimum of 15 employees, thus increasing the likelihood that at least one employee would have communication-related tasks as his or her primary job function. The resulting sampling frame was composed of 171 individual companies and organizations. All 171 were included in the study.

Two separate questionnaires were developed by the researchers: one for corporate leaders and one for directors of human resources. For this study, the researcher drew upon the results of section one of the corporate leader questionnaire. In this section, participants were asked to indicate their level of agreement with four sets of forecasts that had been published in *The Futurist* magazine (which focuses on forecasts, trends, and ideas about the future) since May 2001, utilizing a four-point Likert-type response scale (1 = strongly disagree . . . 4 = strongly agree). To increase the questionnaires' readability and the resulting response rate, these forecasts were grouped into four subsections: (a) agriculture and natural resources predictions, (b) consumer and technology predictions, (c) workplace and workforce predictions, and (d) business strategies and operations predictions. A post-study reliability analysis of all 32 futuring statements was conducted to assess the forecast sections of the corporate leader instrument, resulting in a Cronbach's alpha of .77. Data collection occurred in early 2004, with a final response rate of 58%.

Based on the findings of this study, the following conclusions were reached by the authors:

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1. Corporate leaders agreed with several of the forecasts. Based on mean scores, the 10 forecasts generating the highest levels of agreement were:
 - a. Organizations need to be more responsive to changing market conditions and more innovative in addressing them ($n = 80$, $M = 3.41$, $SD = .52$).
 - b. Consolidation and mergers will continue within the agriculture industry ($n = 79$, $M = 3.39$, $SD = .67$).
 - c. Companies increasingly will be judged on how they treat the environment ($n = 79$, $M = 3.39$, $SD = .67$).
 - d. Branded items with good reputations are even more important for developing repeat business ($n = 77$, $M = 3.32$, $SD = .52$).
 - e. The design and marketing cycle—idea, invention, innovation, imitation—is shrinking steadily. Thus products must capture their market quickly before competition can copy them ($n = 79$, $M = 3.25$, $SD = .52$).
 - f. Rapid changes in the job market and work-related technologies will necessitate increasing training for virtually every worker ($n = 79$, $M = 3.25$, $SD = .59$).
 - g. Convergence of the “melding together of different media” will facilitate new approaches to marketing ($n = 79$, $M = 3.19$, $SD = .56$).
 - h. Information is the primary commodity of more and more industries ($n = 79$, $M = 3.15$, $SD = .62$).
 - i. By 2010, only 1% of the U.S. population will be directly engaged in production agriculture (farming) ($n = 76$, $M = 3.09$, $SD = .57$).
 - j. Information-based organizations will have to make a special effort to prepare professional specialists to become business executives and leaders ($n = 78$, $M = 3.08$, $SD = .50$).
2. The forecast that was most strongly disagreed with by corporate leaders was that computer competence will approach 100% in U.S. urban areas by 2005 ($n = 79$, $M = 2.08$, $SD = .50$).

Industry Guest Speakers

One educational practice that blends both theory and practical application is the examination of current issues, trends, and problems. This course structure commonly examines issues in the agriculture industry that will be faced by agricultural communication graduates when they enter the workforce.

Recently, the authors had the opportunity to listen to the recordings of 24 guest speakers, all of whom are leaders in the agriculture industry. The instructor (and a coauthor of this manuscript) selected speakers representing broadcast and print journalism, marketing, advertising, sales, public relations, training and education, consulting, and administrative aspects of the communications-related sectors of the agriculture industry. Their position titles included editor, anchor, state director, chief operating officer, chief executive officer, president, program analyst, and account executive in organizations based in the public and private sectors across 16 states and the District of Columbia. The instructor personally knew the invited speakers, and they were selected to represent the diversity of careers found in the agricultural communications profession.

The individual speakers addressed a summer 2004 graduate-level contemporary issues class about the issues, trends, and problems they saw as important in the agriculture industry. The speakers were asked to address the class for a total of 30 minutes, including time for questions and answers by the students. Each speaker was audio-recorded by the instructor. The recordings were then analyzed by the authors.

The instructor also established guidelines for the speakers and students to use in defining issues, trends, and problems. An issue was defined as having two sides, "pro" and "con," with people on each side of the issue believing their position to be the correct one. A trend was identified as a new, discernable pattern that represents a change from the traditional pattern. Problems were defined as questions or ideas that involve doubt; once these questions are resolved, the uncertainty disappears. Using content analysis procedures described by Patton (2003), the remarks presented by the 24 industry experts were placed into one of the three categories: issue, trend, or problem.

Content analysis is the process of taking a volume of qualitative data and reducing that data by identifying and sorting it into core consistencies and meaning. Each recorded interview was transcribed and the text scrutinized for recurring patterns that allowed the topics to be classified into one of the three categories. Each author conducted an independent content analysis. After combining the results, the classification of the topics was agreed upon by the authors.

Topics classified as "issues" included: (a) environmental concerns (land, air, water, energy), (b) agricultural water management, (c) biotechnology, (d) rural development, and (e) globalization/trade.

Topics classified as "trends" included: (a) the growing importance of branding, (b) the changing of agriculture's customer base from a focus

exclusively on large producers to additional segments, including the growing number of “hobby” farmers, (c) the growing influence and diversity of digital technologies used by these changing customer bases, (d) the influence of changing markets on the structure of corporate agriculture and the resulting efforts to merge and/or diversify, (e) the increasing importance of risk and crisis communication planning to meet the changing demands by the nonagricultural media and public for “instant” information during crises, and (f) the growing struggles of print and broadcast media brought about by fewer agriculture advertising dollars and convergence activities within these traditional communications segments.

Topics classified as “problems” included: (a) How do we keep the agriculture message out there to maintain the public’s trust? (b) How do we best relate to the growing “hobby” farmer customer base? (c) How do we best explain the scientific and technological aspects of the field so they are easily understood? (d) How do we develop niche markets for producers and industry? (e) How do we best deal with activist pressure? (f) Keeping editorials separate from advertising influence is increasingly difficult. How do we ensure that integrity is maintained?

Conclusions

In reexamining these two industry-based activities, the following themes were identified and are offered as conclusions.

Theme 1: The agriculture industry and its communication needs, wants, and expectations are changing rapidly. Consolidation, mergers, and convergence are all related to change, and these changes are occurring more frequently. Advances in the science of agriculture are occurring more rapidly and have moved beyond the general understanding of the public, which is typically several generations removed from daily involvement with production agriculture. These changes have necessitated public relations activities to keep the public informed of agriculture and to maintain the public trust in the nation’s food supply.

Theme 2: The stakeholders of agricultural communications activities and products are changing, and these stakeholders have diverse communication needs, wants, and preferences. Full-time producers, while declining in numbers, have traditionally been part of a homogenous audience clustered around the primary agriculture commodity they produced. Increasingly, these remaining producers are forming niches within this traditional audience structure based on similarities in terms of production practices and/or marketing activities and goals. In addition, the emergence of the “hobby” farmer—farmers whose primary incomes come from a nonproduction source, but who desire a rural

lifestyle—is creating new challenges for agricultural communicators, from information dissemination to marketing and product positioning.

Theme 3: The response time for communication-related activities continues to shorten. Time seems to be our most valuable resource. A monthly newsletter or trade publication is no longer sufficient to meet the information needs of our primary audience. Mobile communication technologies have facilitated our audiences' increasing demand for near-instantaneous information available through multiple delivery formats. This demand on our time is further taxed by agricultural organizations seeking to be more responsive to changing market conditions and the goal of shortening design and marketing cycles in the hopes of maintaining competitive advantages. These demands on communicators increasingly involve strategic communication planning efforts that also need to incorporate risk- and crisis-communication considerations.

Theme 4: Image is increasing in importance for the agriculture industry and agricultural communications professionals. The importance of corporate and product branding, as well as the belief that agriculture will increasingly be judged on how it treats the environment and our natural resources, underscores this theme. Foundational to a positive image is the ability of communication professionals to maintain the highest of professional standards and the public's trust while representing the interests of others.

Discussion

Over the years, the evolution of the agriculture industry and the emergence of new communication technologies have led to changes in the agricultural communications discipline and in related university-level degree programs. It is safe to assume that change will continue. The only question seems to be if the pace of change will continue to accelerate. Agricultural communications graduates at the bachelor's and master's levels need to be prepared to change. As Johnson (1998) recommends in his book, *Who Moved My Cheese?*, educators must anticipate change, monitor change, adapt to change quickly, enjoy change, and be ready to change again and again. Students may be best served by preparing them with this mindset and these workplace abilities. The question of how this is best achieved should be left to the creative efforts of agricultural communications faculty.

A proposed research agenda, *National Research Agenda for Agricultural Education and Communication: Research Priority Areas and Initiatives* (American Association for Agricultural Education, 2007), was presented to ACE research special interest group members at the 2006 annual meeting. This effort resulted from a collaborative project under the leadership of the National Council for Agricultural Education.

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For agricultural communications, the proposed agenda was built upon the concept that agricultural knowledge management can serve as the framework for an integrated, comprehensive research agenda in the profession. From this knowledge management concept, the research agenda highlighted four research priority areas. Priority four focused on developing effective agricultural workforces for knowledge-based societies. The rationale for this priority is that knowledge management includes organizational processes that seek to combine data- and information-processing capabilities with the creative and innovative capacity of human beings.

Any society is dependent upon the capability of its workforce. In today's global economy, where knowledge and information determine competitiveness, a major objective is to develop and maintain the ability of citizens to perform skilled and knowledge-intensive tasks. Agricultural communications professionals will be among the leaders in creating knowledge management systems for the industry. As such, their knowledge, skills, and abilities must be at a level that ensures their continued success. The themes that have emerged from industry through this study underscore the importance of researching the employee needs of the 21st century agriculturalist and agricultural communicator. These results can also have a positive influence on university-level curricula and degree programs, both inside and outside of agricultural communications programs.

To satisfy the communications-related needs of the agriculture industry and the agricultural communications profession, the discipline must continue to examine the factors that can influence the future direction of the profession and its degree-granting programs. Educators need to consider industry trends, issues, and problems as they prepare new agricultural communications graduates with the knowledge and skills to effectively enter the workforce. To help students at both the undergraduate and graduate levels, educators may want to advise them to take specific classes in the agricultural sciences to deal with issues, trends, and problems. Educators may also want to develop classes around specific issues, trends, or problems, and find creative ways to teach students to deal with change and manage the information that goes with that change. As scholars, agricultural communications faculty need to conduct research that adds to their knowledge base and their understanding of their different customer bases.

A combination of theory and skills will be necessary as educators communicate the complexity of agriculture to the public, prepare students to effectively enter the workforce, and advance the knowledge of the discipline. Evans (2004) sums it up best: "However the world's food enterprise may change during the years ahead, our special field of interest—the substance,

flow, and dynamics of human communicating—is central to the success of it” (p. 10).

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Keywords

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