

Literature Themes from Five Decades of Agricultural Communications Publications

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Abstract

The discipline of agricultural communications has been developing for nearly two centuries. As the discipline has adapted, professional organizations such as the American Association of Agricultural College Editors (AAACE) and the Association for Communication Excellence in Agriculture, Natural Resources, and Life and Human Sciences (ACE) have published literature representative of the topics and issues that have impacted the discipline through magazines and journals such as the AAACE, ACE Quarterly, and the Journal of Applied Communications (JAC). The purpose of this study was to review the literature published in AAACE, ACE Quarterly, and JAC from 1968–2015 to identify primary and secondary literature themes. There were 13 emergent themes identified. The most prolific primary theme identified was Channel Development, Use or Research while the most prolific secondary theme identified was Educating Professionals. A count of the number of articles classified as “professional development” and “research” revealed a shift in the focus in the journal outlets. In earlier years, the discipline focused mainly on professional development articles (AAACE and ACE Quarterly), but transitioned almost completely to research (JAC). This research acknowledges that the discipline has experienced significant literary shifts and provides a recommendation for further research in audience analysis of the literature coming from the journals of the discipline.

Key Words

Agricultural Communications Literature, Content Analysis, Journal of Applied Communications Research

Literature Review

Agricultural communications (ACOM) was originally developed to disseminate information from Agricultural Experiment Stations to the public (Telg & Irani, 2012). ACOM plays an important role in connecting agricultural producers to the consumers who are increasingly separated from the processes that provide them with food, fiber, shelter, and energy. As the need for communication between producers and consumers continued to increase over the last century, ACOM evolved from an area of study in agricultural education to a discrete discipline with its own relevant body of literature. In addition to refining practices used in the industry and educating college students, ACOM faculty focus on social science, specifically applied communications research.

The profession of ACOM began in the early 1800s (Tucker, Whaley, & Cano, 2003). Publications such as *The Agricultural Museum*, *The American Farmer*, and *The Breeder's Gazette* were created by national leaders of agriculture, such as John Stuart Skinner, to improve farming and production practices (Tedrick, 2009). By the 1900s, the ACOM field of study was competitive and required skilled writers and editors who had knowledge of agricultural issues and farming practices (Burnett & Tucker, 2001). Therefore, the academic discipline of agricultural journalism was created

with the first courses being offered at Iowa State in 1905 (Boone, Meisenbach, & Tucker, 2000; Tedrick, 2009). Early agricultural journalism courses focused on writing, editing, and dissemination skills to improve agricultural practices. In 1908, the University of Wisconsin established the Department of Agricultural Communications and offered a bachelor's degree within the field of ACOM. Today, 26 higher education institutions offer a major, minor, or concentration in ACOM/journalism (Miller, Large, Rucker, Shoulders, & Buck, 2015).

Soon after the turn of the 20th century, collaborative efforts between agricultural communicators and industry members were formalized with the creation of professional development organizations. In 1913, the first meeting of the American Association of Agricultural College Editors (AAACE) was conducted at the University of Illinois (Tedrick, 2009). While only three editors attended the inaugural meeting, the association continued to grow as a gathering and idea-sharing platform for ACOM practitioners and educators. In 1919, the *ACE* magazine was created to distribute information related to jobs in the ACOM profession, abstracts from AAACE meetings, and news items. By 1966, AAACE had become one of the leading organizations for ACOM with a membership of over 400 dues-paying broadcasters, writers, editors, and photographers (Jarnagin, 1967). This was the beginning of the Association for Communication Excellence in Agriculture, Natural Resources, and Life and Human Sciences (ACE). The association's publication, *ACE Quarterly*, provided an outlet for ACE members to showcase their ACOM skills including writing, broadcasting, and new communication technology. Later, the *Journal of Applied Communications (JAC)* was created and solicited peer-reviewed articles. It was at this time the published works in this outlet began to shift from professional development to research-focused articles.

Research in ACOM assists the discipline (education) and practice (industry) by identifying scientific activity, philosophy, and education. Cartmell and Evans (2013) conducted research noting the close relationship among courses, degree programs, research agendas, and other academic programming. Furthermore, their research made a strong case for continued efforts to strengthen this relationship to better promote and anchor the mission of the ACOM discipline. A study conducted by Edgar, Rutherford, and Briers (2008) identified *JAC* as the primary peer reviewed journal for ACOM research and professional scholarship. This study analyzed published *JAC* articles from 1997 to 2006 and identified 21 primary research theme areas, as well as 28 secondary research theme areas. Results of the study revealed cyclic research themes, with specific themes appearing as both primary and secondary themes. As with any cognate area, the body of ACOM literature possesses gaps in knowledge that need to be addressed, some of which are more pertinent and timely than others. Understanding where these literature gaps exist is at the heart of defining the direction of the agricultural communications profession. There is currently no longitudinal, comprehensive literature looking at emergent themes in published works from AAACE, *ACE Quarterly*, or *JAC* as a holistic body of knowledge. The focus of this research was to reflect on and review the field of ACOM literature to allow research focus to adjust, if needed, in the future.

Purpose of the Study

The focus of this research was to review ACOM literature from 1968 to 2015. This review used a content analysis of previous literature published in the three literary outlets: AAACE, *ACE Quarterly*, and *JAC*. The following research objectives guided the study:

1. Describe and synthesize primary (knowledge-base) and secondary (conceptual-base) literature areas from journal articles published in AAACE (1968-1978), *ACE Quarterly* (1978-1989), and the *Journal of Applied Communications* (1990-2015).
2. Identify primary and secondary emergent theme areas by outlet.

Methods

This study employed a qualitative content analysis to assess articles published in the American Association of Agricultural College Editors (AAACE), *ACE Quarterly*, and the *Journal of Applied Communications (JAC)* from 1968 to present. Content analysis as a research method has existed for decades (Weber, 1990), and can be used to give researchers insight into problems or hypotheses that can then be tested by more direct methods. Content analysis is a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding (Berelson, 1952; Krippendorff, 1980; Weber, 1990).

Content validity was maintained using previous research and a specific field of study to focus the research. Professional and research articles from 1968 to 2015, in the identified journals, were used as the frame. These years were selected because they were in print and accessible. The main focus of each article (knowledge-base or most prominent focus) was coded as the primary theme area. The most prevalent supporting theme (conceptual-base or secondary focus) was identified as the secondary theme for each article. The principal investigator and a peer independently reviewed the material and formed a checklist of information required during the review of each journal article. The researchers compared notes and reconciled differences on their initial checklists via negotiations. Researchers then used a consolidated checklist to independently apply coding. The researchers periodically checked for agreement in coding; if reliability was not acceptable (at least 80% accuracy), then the previous steps were repeated.

Once inter-rater agreement was established, a constant comparative strategy was used to assess each article. Qualitative data analysis is “primarily an inductive process of organizing data into categories and identifying patterns and relationships among the categories” (McMillan & Schumacher, 2010, p. 367). Themes emerged both from the data (an inductive approach) and from the investigators’ prior understanding of the phenomenon under study (an *a priori* approach). Researchers used inductive analysis to synthesize and create meaning from the data as well as identify and quantify the presence of words and concepts representing emergent themes within the primary and secondary themes (McMillan & Schumacher, 2010). A quantitative content analysis approach was used to determine the frequency at which each of the emergent themes was represented among the articles. This was accomplished through the use of Microsoft™ Excel sheets for each outlet. Analyses of word counts were used to determine inferences about the frequency of themes. Word counts do not imply importance, merely frequencies.

Limitations to this study include the development of broad emergent themes. This was necessary because of the vast diversity in articles discovered in these literary outlets. Overall, 263 emergent themes were identified. Therefore, it was necessary to compress these themes into more manageable areas for reporting. However, it should be noted that professional development and research in these outlets are vast and overreaching.

Results and Findings

There were 177 articles analyzed in AAACE (1968-1978), 184 articles in *ACE Quarterly* (1978-1989), and 324 in *JAC* (1990-2015). Of those AAACE articles analyzed, 145 articles were professional development and 32 were research-focused. In *ACE Quarterly*, there were 146 professional development articles and 38 research. In *JAC*, 95 were professional development and 229 were research-focused. All articles without research methodologies were classified as “professional development.” There were 13 emergent themes identified in the journals ($N = 685$). A list of the emergent themes and descriptors of those themes are noted in Table 1.

Table 1

Emergent Themes Identified in AAACE, ACE Quarterly, and JAC, 1968 to 2015

Emergent Theme	Descriptors
ACOM Organization	AAACE, ACE, Service to the Organization (all information specific an ACOM organization or publication outlet)
Channel Development, Use or Research (articles were specific to a channel)	Development, Distribution, Evaluation, Outlet, and Research Specific to Communication Channels (i.e. radio, print, television, web, etc.)
Consumers/Publics	Audience, Attitudes, Messaging or Messages, Perceptions, Views/Perspectives
Extension, Youth, Rural Programs	Cooperative Extension Service, Development Efforts, Global, Service, International, Program Development, Youth Programming
Educating Professionals	Duties, Professionalism, Roles, Skills, Training
General Agriculture	Practices, Commodities, Biotechnologies
Higher Education	Adult Learning, Curriculum, Distance Education, Land-grant System, Tenure
Journalism	Dissemination, Production, Placement, Relations, Sources
Marketing/Public Relations	Advertising, Branding, Strategy, Campaign
Organizational Communication & Management	Business management, Information Management, Leadership
Policy & Issues	Legal Issues, Opinion Leaders, Regulations
Risk & Crisis Communications	Crisis Response, Emergency Preparedness, Risk Assessment
Research Analyses	Communication Assessment, Research Analytics, Scientific Writing

The frequencies of primary and secondary literature themes for all outlets are noted in Table 2. The most identified primary theme (knowledge-base or most prominent focus of the article) was Channel Development, Use or Research ($n = 145$). The most identified secondary theme (conceptual-base or secondary focus of the article) was Educating Professionals ($n = 170$). The least identified primary theme was General Agriculture ($n = 4$), and Risk and Crisis Communication ($n = 11$) was the least identified secondary theme.

Table 2

Primary and Secondary Themes Identified in AAACE, ACE Quarterly, and JAC, 1968 to 2015 (n = 685)

Primary Themes	<i>n</i>	%	Secondary Themes	<i>f</i>	%
Channel Development, Use or Research	145	21.2	Educating Professionals	170	24.8
Consumers/Publics	94	13.7	Channel Development, Use or Research	107	15.6
Educating Professionals	94	13.7	Extension, Youth, Rural Programs	77	11.2
Journalism	87	12.7	Consumers/Publics	75	10.9
Higher Education	79	11.5	Higher Education	66	9.6
Research Analyses	54	7.9	Policy & Issues	42	6.1
Organizational Communication & Management	27	3.9	Organizational Communication & Management	26	3.8
Extension, Youth, Rural Programs	26	3.8	Journalism	24	3.5
Marketing/Public Relations	23	3.4	ACOM Organizations	23	3.4
ACOM Organization	21	3.1	General Agriculture	22	3.3
Risk & Crisis Communications	16	2.3	Research Analyses	22	3.3
Policy & Issues	15	2.2	Marketing/Public Relations	20	2.9
General Agriculture	4	0.6	Risk & Crisis Communication	11	1.6

Of the 177 AAACE articles analyzed, 71 articles had primary and secondary themes compressed into the same category (40%). In Table 3, primary and secondary literature themes identified in AAACE are noted. Also, noted is the number of research articles by theme (32 total research-focused articles). The remaining articles are classified as professional development articles or articles without research methodologies (145 articles). Educating Professionals was noted as the most frequent primary ($n = 37$) and secondary theme ($n = 40$), comprising 22% of all the literature in AAACE. There were no articles with a focus on Risk and Crisis Communications.

Table 3

Primary and Secondary Themes Identified in the Literature Published in the American Association of Agricultural College Editors (n = 177)

Emergent Theme	n Primary Themes	n Research Articles	n Secondary Themes	n Research Articles	Total n	%
Educating Professionals	37	3	40	4	77	22%
Channel Development, Use or Research	30	6	28	6	58	16%
Consumers/Publics	25	5	19	1	44	13%
Higher Education	15	4	16	5	31	9%
Extension, Youth, Rural Programs	8	2	22	3	30	9%
Research Analyses	21	6	6	1	27	8%
Journalism	14	3	6	2	20	6%
ACOM Organizations	10	0	9	2	19	5%
Organizational Communication & Management	7	1	11	2	18	5%
Policy & Issues	5	0	11	2	16	5%
Marketing/Public Relations	5	2	3	2	8	2%
General Agriculture	0	0	6	1	6	1%
Risk & Crisis Communications	0	0	0	0	0	0%

Of the 184 *ACE Quarterly* articles analyzed, 49 articles had primary and secondary themes compressed into the same category (27%). Primary and secondary literature themes identified in *ACE Quarterly* are noted in Table 4. Also, noted is the number of research articles by theme (38 total research-focused articles). The remaining articles are classified as professional development articles or articles without research methodologies (146 articles). Channel Development, Use or Research was noted as the most frequent primary theme ($n = 47$) and Educating Professionals was the most noted secondary theme ($n = 66$). The most frequent (29%) emergent theme was Educating Professionals (n Primary Themes = 40; n Secondary Themes = 66).

Table 4

Primary and Secondary Themes Identified in the Literature Published in the ACE Quarterly (n = 184)

Emergent Theme	<i>n</i> Primary Themes	<i>n</i> Research Articles	<i>n</i> Secondary Themes	<i>n</i> Research Articles	Total <i>n</i>	%
Educating Professionals	40	3	66	14	106	29%
Channel Development, Use or Research	47	10	32	3	79	21%
Extension, Youth, Rural Programs	7	3	30	7	37	10%
Journalism	22	7	7	0	29	8%
Consumers/Publics	12	6	13	3	25	7%
Research Analyses	19	1	8	2	27	7%
Higher Education	11	5	9	2	20	5%
Organizational Communication & Management	11	1	6	1	17	5%
ACOM Organizations	5	1	6	3	11	3%
Marketing/Public Relations	5	1	1	0	6	2%
Risk & Crisis Communications	2	0	0	0	2	1%
Policy & Issues	2	0	3	0	5	1%
General Agriculture	1	0	3	3	4	1%

Of the 324 *JAC* articles analyzed, 80 articles had primary and secondary themes compressed into the same category (25%). In Table 5, primary and secondary themes identified in *JAC* literature are noted. Also, noted is the number of research articles by theme (229 total research focused articles). The remaining articles are classified as professional development articles or articles without research methodologies (95 articles). Channel Development, Use or Research was noted as the most frequent primary theme ($n = 68$) and Educating Professionals was the

most noted secondary theme ($n = 64$). The most frequent (20%) emergent theme was Channel Development, Use or Research (n Primary Themes = 68; n Secondary Themes = 47), followed closely by Consumers/Publics at 19%.

Table 5

Primary and Secondary Themes Identified in the Literature Published in the Journal of Applied Communications ($n = 324$)

Emergent Theme	n Primary Themes	n Research Articles	n Secondary Themes	n Research Articles	Total n	%
Channel Development, Use or Research	68	45	47	45	115	18%
Consumers/Publics	57	48	43	48	100	15%
Higher Education	53	37	41	37	94	15%
Educating Professionals	17	10	64	10	81	12%
Journalism	51	42	11	42	62	10%
Extension, Youth, Rural Programs	11	7	25	7	36	6%
Policy & Issues	8	5	28	5	36	6%
Marketing/Public Relations	13	10	16	10	29	4%
Risk & Crisis Communications	14	11	11	11	25	4%
Organizational Communication & Management	9	4	9	4	18	3%
Research Analyses	14	5	8	5	22	3%
ACOM Organizations	6	3	8	3	14	2%
General Agriculture	3	2	13	2	16	2%

The most frequent themes by year are identified in Table 6. Of the 13 emergent themes identified, 10 were the most published theme by year for at least one year. There were years where the most prominent emergent themes were tied. Those themes are also noted below.

Table 6

Most Frequent Emergent Themes Identified Per Year

Theme	Most frequent themes by year	Most frequent themes that were tied by year
Channel Development, Use or Research	1972,1973, 1977, 1979, 1981, 1983, 1986, 1988, 1989, 1991, 1992, 1994, 2000, 2006	1974, 1984, 1987, 1996, 1997, 2002
Educating Professionals	1969, 1970, 1980, 1982, 1985	1976, 1984, 1993, 2015
Consumer/Publics	1971, 1974, 2005, 2007, 2013, 2014	1974, 1976, 2015
Higher Education	1990, 1995, 1998, 2001	1976, 1993, 1996, 2002
Journalism	2003, 2004, 2009, 2010, 2011	1987, 1997
Marketing/Public Relations	1975, 1978	1976, 1979
Research Analyses	1968	1976
Organizational Communication & Management	--	2002
ACOM Organizations	--	2008
General Agriculture	--	2008
Extension, Youth, Rural Programs	--	--
Risk & Crisis Communication	--	--
Policy & Issues	--	--

Conclusions

A total of 685 articles were analyzed from the American Association of Agricultural College Editors (AAACE) (1968-1978), *ACE Quarterly* (1978-1989), and the *Journal of Applied Communications* (JAC) (1990-2015). There were 299 research articles and 386 professional development articles (articles without research methodologies). AAACE and *ACE Quarterly*

were primarily professional development publication outlets with growing numbers of research articles, but the main focus was to inform practice and were often written by practitioners. *JAC* focused primarily on research articles, indicating that the agricultural communications discipline has shifted to more research focus in this outlet. This may be due both to the influx of new media channels where professional development forums can more easily be shared with practitioners and to researchers using *JAC* as the primary outlet for ACOM research (Edgar et al., 2008).

The majority (51%) of the literature published in AAACE ($n = 177$) was focused on Educating Professionals (21%), Channel Development, Use or Research (16%), and Consumers/Publics (13%). Higher Education (9%) and Extension, Youth, Rural Programs (9%) were also noteworthy. In *ACE Quarterly* ($n = 184$), the majority (60%) of literature published was focused on Educating Professionals (29%), Channel Development, Use or Research (21%), and Extension, Youth, Rural Programs (10%). The majority (60%) of the literature published in *JAC* ($n = 324$) was focused on Channel Development, Use or Research (18%), Consumers/Publics (15%), Higher Education (15%), and Educating Professionals (12%). When comparing all outlets for primary themes, Channel Development, Use or Research (21.2%), Consumers/Publics (13.7%), Educating Professionals (13.7%), and Journalism (12.7%) were the most frequent emergent themes. Secondary emergent themes for all assessed outlets focused primarily on Educating Professionals (24.8%), Channel Development, Use or Research (15.6%), and Extension, Youth, Rural Programs (11.2%).

Educating Professionals were important literary areas for both AAACE and *ACE Quarterly*, and was noted as the most frequent theme in these outlets. Yet, it was the fourth most frequent emergent theme in *JAC*. Throughout all three literary outlets (AAACE, *ACE Quarterly*, *JAC*), Channel Development, Use or Research was first (*JAC*) or second (AAACE and *ACE Quarterly*) in primary themes. Moreover, articles pertaining to Risk and Crisis Communications were not presented in AAACE and negligible (1%; in primary theme $n = 2$ and 0% in secondary theme) in *ACE Quarterly*. However, the frequency of articles pertaining to Risk and Crisis Communications increased, what appears to be, significantly in *JAC* (11%; primary theme $n = 14$; secondary theme $n = 11$). This is likely due to both an emergent and increased focus of research in this area.

When analyzing primary and secondary emergent themes per article, 22% from AAACE and 29% from *ACE Quarterly* focused on Educating Professionals. For *JAC*, 18% focused on Channel Development, Use or Research, followed in the fourth most frequent theme being Educating Professionals. It appears, then, the agricultural communications discipline has and continues to be focused on educating others. Yet, additional literary areas continue to be published with fluctuation on frequency.

Findings from this study supported previous research that noted *JAC* themes were cyclic in nature and specific themes appeared as both primary and secondary themes (Edgar et al., 2008). Also, it is important to use information gleaned from this research to focus future research and the development of research agendas and research focus (Cartmell & Evans, 2013; Edgar et al., 2008). This research may also add value to ACOM curriculum development (Large et al., 2015). In this study, emergent theme areas were broad to capture the essence of changes in published literature in ACOM outlets during the past 50 years. These broad emergent theme areas make it difficult to understand specifically how the discipline has shifted.

Recommendations

This research provided insight into the development and progression of published works in ACOM outlets over five decades, specifically from AAACE to *ACE Quarterly* to *JAC*. Most of the emergent theme of ACOM Organization occurred early in the literature analyzed. This could be due to the emergence and progression in the organizational structure of the discipline.

Earlier research also focused more heavily on Extension, Youth, Rural Programs (14% of primary and secondary literary themes). This is likely due to the ACOM discipline being more focused in ACOM service units in earlier years (Boone et al., 2000). There may be value in understanding more fully how the discipline shifted and developed during this time to better understand why and how literary themes were shifting in this primary outlet (Edgar et al., 2008).

The results of this study describe a shift of focus in ACOM literature as described in primary and secondary themes throughout the almost 50 years of literary works. As the ACOM discipline continues to morph and expand, the discovery and exploration of new knowledge, channels, research, media, and issues important to agriculture and communications will continue. As the *Journal of Applied Communications* moves forward into the next few decades, it is important for research and professional development contributors as well as journal editors to understand the nature of ACOM and its literary shifts. Continuing to assess the journal as it evolves is necessary to meet the diverse needs of practitioners and academicians. Further research should explore the readership of the journal and analyze if the journal is meeting the needs of its audience.

Implications of this research could affect future research agendas for the discipline. Future research should evaluate the alignment of industry needs and academic discipline publications. It is clear the focus in research and professional development has shifted throughout the years, but it is not clear that there is alignment or transference from these publications to professionals in the industry.

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