A Study of Extension Professionals Preferences and Perceptions of Usefulness and Level of Comfort with Blogs as an Informal Professional Development Tool

Abstract

The use of blogs for informal professional development is a growing phenomenon in higher education. The purpose of the study reported here was to describe Extension faculty's preferences for and perceptions of using an online, particularly social media, environment for professional development. The LSU AgCenter Organization Development and Evaluation unit conducted an 18-week pilot study to determine the feasibility of this delivery method with field and state faculty. Results indicate that blogs are underutilized because of the newness of the technology but possess potential as a delivery method.

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Introduction and Review of Literature

E-learning solutions for professional development (PD) have grown steadily in popularity. From higher education to big corporations to libraries to dedicated e-learning PD businesses, a plethora of training options have emerged. Three cutting-edge options are webinars, Twitter, and blogs. Each of these platforms shares elements of both situated and constructivist learning. Situated approaches take place within the context in which the learning is applied, whereas constructivist learning leverages the individual's capacity to build on previous knowledge (Loving, Schroeder, Shimek, & Herbert, 2007).

E-learning PD courses are typically directly connected to the work the learner is expected to carry out and, depending on the course structure, use both learning activities and field applications that activate prior knowledge. The use of self-directed, learner-centered approaches to PD is a strength of e-learning strategies grounded in adult learning theory (Knowles, 1973). These ideas are foundational to any time, any place learning that respects that professionals lead busy lives with competing demands from work and home. This is particularly relevant within Extension, where faculty not only balance career demands but may also be located in rural areas with little money to travel to training or access to support.

One of the more popular PD options has been webinars. A webinar is an online version of a seminar with varying

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levels of participant engagement offered through a moderated text discussion (or chat box), poll, audio Q&A, or other integrated media (Basiel & Howarth, 2011). Learners engage in real-time or access an archived version if available. Participating synchronously, when participants are present at the same time as the instructor, offers optimal levels of collaborative engagement. Asynchronous participation, when subject matter is accessed when convenient, offers fewer chances for a group to work together (Carlson, 2009).

Weblogs have also grown in popularity, particularly within higher education teacher training programs. The first use of the term "weblog" is credited to John Barger (Herring, Scheidt, Wright, & Bonus, 2005), who defined a weblog, or blog, as a simulated online diary laid out in reverse chronological order so that more recent, dated entries appear near the top of the page and older entries are displayed below (Barger, 1999; Herring et al, 2005). Blogs provide an asynchronous, participatory outlet for PD because content may be read at the user's convenience. Participation is encouraged by inviting learners to comment on content, share thoughts, and respond to other commenters' posts.

A relatively new PD training option is Twitter. Twitter is a form of "microblogging" that allows users to send updates (or "tweets") of 140 characters or fewer to other users who have chosen to follow their conversations (Stevens, 2008; twitter.com, n.d.). One of Twitter's most fascinating facets is this seemingly instantaneous link with other users (Stevens, 2008). Within the PD world, Twitter not only builds community among like-minded professionals, it also provides access to very unique learning opportunities. These experiences run the gamut and include tracking conversations around a topic of interest (Grosseck & Holotescu, 2008), participating in a chat about a specific PD subject, sharing Web or video links, collaborating instantly (Honeycutt & Herring, 2009), and building connections at conferences (Reinhardt, Ebner, Beham, & Costa, 2009).

Blogs may be used for many purposes in a professional development environment. The most commonly cited uses were sharing information and promoting personal reflection (Hou, Chang, & Sung, 2009; Luehmann, & Tinelli, 2008). Sharing information is an entry point for constructing new knowledge, defined as taking a new perspective, making new meaning, and developing a deeper understanding (King, 1994). Although Leslie and Murphy (2008) mentioned knowledge construction as both a purpose and strength of PD blogs, Hou, Chang, and Sung (2009) found that participants stopped at information sharing, a lower cognitive task, and did not progress to the higher levels of synthesis and evaluation. Thus, research findings are still rather vague about whether or not knowledge construction actually occurs. Blogs offer professionals a place to network with others with similar interests. Networking is described at two levels: establishing a social presence (Leslie & Murphy, 2008; Luehmann & Tinelli, 2008), or making a place for oneself within a group (Anderson, 2005); or developing a community of practice (Boulos, Maramba, & Wheeler, 2006) and gathering like-minded people to discuss practice or shared professional interests.

It is important to understand the barriers to PD blog usage. The most frequently identified barrier was technology. Problems included inexperience with starting a blog, unfamiliarity with posting to and commenting on blogs, and inability to use RSS feeds for perusing blog content, as well as lacking time to read and interact on blogs (Baran & Cagiltay, 2010; Diem, Hino, Martin, & Meisenbach, 2011). Another obstacle was caution over the public nature of blogs that was expressed as a desire for a safe place to interact (Instone, 2005) or as a fear of commenting, and thus exposing oneself to criticism in an open setting (Lefoe & Meyers, 2006). Finally, conceptual issues related to learning to use blogs in a PD setting were recognized. A lack of comprehension of how blogs could be used for PD was the most troubling issue (West, Wright, Gabbitas, & Graham, 2006).

With shrinking travel dollars and fewer personnel, Extension organization development units and content-specific departments have had to become both creative and proactive in delivering PD training. The increased popularity of e-learning and social media prompted the Louisiana State University AgCenter Organization Development and Evaluation (ODE) unit to explore blogs as a method of informal PD training. The choice to investigate the possibilities was based on many factors, including interest among ODE faculty in learning about blogging, interest among Extension administrators in using social media as a program delivery method and less-than-ideal participation in webinars that the unit had offered. Additionally, the blog would provide a public forum that would be accessible to learners from outside the organization, thus offering a way to build the AgCenter's visibility with a wider audience.

The study reported here determined Extension faculty's preferences for and perceptions of using an online, particularly

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social media, environment for PD. The objectives of the study were:

- To determine if faculty use blogs for PD purposes and if not, why;

- To describe faculty comfort with and perceived usefulness of online and social media platforms for PD;

- To determine if there was any difference in comfort level in creating a learning plan and using webinars, blogs or Twitter for PD or perceived usefulness in improving professional practice for PD based on years of service or primary job responsibility;

- To gauge faculty interest in organization development, program development and evaluation PD topics; and

- To determine faculty preferences for frequency and timing of electronic PD offerings via blogs.

Methodology

Participants

The target population for the study was LSU AgCenter Extension faculty and staff with county, regional, and/or state assignments (N=401) to whom the blog posts were advertised. The response rate for the study was 21% (n=84), representing a cross-section of employees with varying years of service and job assignments (Table 1).

Table 1.

Selected Demographics of Extension Faculty and Staff

	N[a,b]	%
Years of Service		
Less than 3 years	11	13.4
3-7 years	20	24.4
8-15 years	11	13.4
16-25 years	23	28.0
More than 25 years	17	20.7
Primary Job Assignment		
4-H Youth and Family Development	34	42.5
Agriculture and Natural Resources	26	32.5
Nutrition	17	21.3
Community Development	3	3.7
[a]2 people did not indicate years of service [b]4 people did not provide information about primary job assignment		

Measures

Blog Usage

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Identifying current practices related to using blogs for PD was a primary interest. Faculty members responded to two open-ended and three closed-ended questions. The closed-ended questions asked whether or not faculty followed any blogs for professional development purposes; if yes, whether or not the information was used in their professional practice; and if no, why they did not use blogs for this purpose. The open-ended questions provided clarity about two of the preceding questions, with one question asking which PD blogs they followed and the other asking how information was used.

Perception of Comfort

Faculty comfort with developing a learning plan and using informal delivery methods like webinars, blogs, and Twitter for PD was measured using a four-item scale, with items like "I feel comfortable attending webinars as an informal professional development method of learning." Responses were recorded using a four-point, Likert-type scale: strongly disagree, disagree, agree, strongly agree.

Perceived Usefulness

Faculty's perception of the usefulness of webinars, blogs, and Twitter in improving their professional practice was measured using a three-item scale, with items like "Webinars are useful for helping to improve my practice as an Extension professional and educator." A four-point, Likert-type scale was used: strongly disagree, disagree, agree, strongly agree.

Professional Development Content Interests

Blog content included a range of organization development, program development, and personal improvement content chosen to reflect the unit's areas of expertise. Respondents selected the five categories that were most useful. A list of content categories is presented in Table 9.

Preferences for Frequency and Timing

Two questions were used to determine faculty preference for how often and when blog posts should be made. The question "How often do you prefer to read blog posts?" was used to determine frequency. Respondents selected one answer from the following categories: 4-5 times per week, 2-3 times per week, 1 time per week, 1 time every two weeks, 1-2 times per month. The timing of posts was determined by asking the question "What day(s) of the week do you prefer reading blog posts?" Respondents chose all answers that applied: Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday/Sunday.

Procedure

The LSU AgCenter ODE unit undertook an 18-week pilot using blogs as a delivery method for PD. The pilot planning process was guided by Blair and Cranston's (2006) steps: articulate a vision and scope, identify the target audience, and determine a means for marketing the blog. Team brainstorming was used to reach a shared vision of the blog's purpose; information delivery with the option of social interaction via blog comments was chosen. The scope of the blog was guided by the unit's mission statement: *"The LSU AgCenter's Organization Development and Evaluation (ODE) unit provides Extension personnel with the training and resources needed to design, implement and evaluate sound educational programs based on stakeholder needs."* The 18 weeks of the pilot were divided into 6 3-week sections, with varying frequencies and types of posts (Table 2). Each faculty member was asked to contribute 9 posts during the 18-week study period.

Table 2.
Frequency and Type of Blog Posts

	Post Frequency	Post Type

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Study Period	1 time/week	3 times/week	5 times/week	Random	Themed
Weeks 1-3	x				x
Weeks 4-6		x			x
Weeks 7-9			x		x
Weeks 10-12	x			x	
Weeks 13-15		x		x	
Weeks 16-18			x	x	

The blog was marketed through emails sent prior to the blog's inception as well as periodic emails when new posts were made. At the conclusion of the pilot phase, a questionnaire was developed, and data were collected via Zoomerang. The survey link was emailed to all Extension faculty, with two reminders sent 1 week and 2 weeks after the survey launched. Due to the anonymous nature of the survey, additional follow-up with non-respondents was not possible.

Results

The first objective of the study was to determine if Extension faculty used blogs for PD and, if not, why they did not. The majority of respondents (n=69; 85%) reported that they did not read blogs for professional development. The most frequently selected reason for not reading or following blogs (Table 3) was lack of time (n=49; 58.3%). Open-ended questions provided clarification that those faculty who did follow blogs as a means of professional development (n=12; 15%) were primarily following Extension blogs related to their specific subject matter (i.e., entomology, youth development, nutrition, and horticulture) and used the information for program development purposes.

Table 3.

Reasons Why Extension Faculty and Staff Do Not Read or Follow Professional
Development Blogs

	n^a	%
I don't have time	49	58.3
I don't know how to make blog posts easily accessible for me to read	13	15.5
I don't know how to find useful professional development blogs	10	11.9
There are no blogs of interest to me that are relevant to my work	5	6.0
[a]This was a multiple response item		

The second objective of the study was to describe faculty comfort level with creating a learning plan and using online and social media platforms for PD. The majority of respondents (n=64; 86.5%) indicated that they felt comfortable creating a plan for PD using informal methods of learning. Faculty were most comfortable with using webinars for PD (n=68; 84%) and were least comfortable using Twitter (n=15; 19.5%). Likewise, faculty felt that webinars were the most useful PD tool (n= 64; 85.3%) and Twitter feeds were the least useful (n= 15; 20%). Blogs balanced in the middle, with 45.3% of faculty (n=34) indicating comfort with using this as a medium for PD and 47.3% (n=36) acknowledging the usefulness of this delivery method (see Table 4).

Table 4.

Faculty Perceptions of Comfort with and Usefulness of Online and Social Media Platforms for
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	Strongly Disagree		Disagree		Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
I feel comfortable creating a learning plan for myself that includes informal professional development methods of learning.	3	4.1	7	9.5	46	62.2	18	24.3
I feel comfortable attending **WEBINARS** as an informal professional development method of learning.	2	2.5	11	13.6	48	59.3	20	24.7
Webinars are useful for helping to improve my practice as an Extension professional and educator.	1	1.3	10	13.3	52	69.3	12	16.0
I feel comfortable utilizing **BLOGS** as an informal professional development method of learning.	11	14.7	30	40.0	30	40.0	4	5.3
Blogs are useful for helping to improve my practice as an Extension professional and educator.	10	13.2	30	39.5	34	44.7	2	2.6
I feel comfortable following **TWITTER FEEDS** as an informal professional development method of learning.	31	40.3	31	40.3	11	14.3	4	5.2
Twitter feeds are useful for helping to improve my practice as an Extension professional and educator.	26	34.7	34	45.3	13	17.3	2	2.7

The third objective of the study was to determine if there was any difference in comfort level with creating a learning plan and using webinars, blogs, or Twitter for PD or the perceived usefulness of these methods for improving professional practice based on years of service or primary job responsibility. Because the dependent variables (comfort level and perceived usefulness) were measured using an ordinal scale and sample sizes were small, the Kruskal-Wallis *H*-test was chosen for the multiple comparisons. This test uses mean ranks (see Fields, 2009, p. 542) and is the non-parametric equivalent of an independent samples analysis of variance (ANOVA).

In comparing comfort level across years of service, five groups were compared (Table 5). No significant differences were found among the groups (Creating a Plan, $H(4) = 3.826$, $p>0.05$; Attending Webinars, $H(4) = 5.275$, $p>0.05$; Utilizing Blogs, $H(4) = 1.967$, $p>0.05$; Following Twitter, $H(4) = 1.379$, $p>0.05$).

Table 5.

Mean Ranks for Perception of Comfort with Informal Professional Development Delivery
Methods by Years of Service

	Years of Service								
	< 3		3-7		8-15		16-25		> 25	
Perception of Comfort	n	Rank	n	Rank	n	Rank	n	Rank	n	Rank
Creating a learning plan that includes informal professional development methods of learning.	8	34.2	19	43.9	10	36.7	21	37.4	16	32.2

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Attending **WEBINARS** as an informal professional development method of learning.	11	40.4	20	48.2	11	34.6	22	43.0	17	34.6
Utilizing **BLOGS** as an informal professional development method of learning.	10	44.2	20	39.5	10	39.1	20	33.8	15	36.9
Following **TWITTER FEEDS** as an informal professional development method of learning.	10	43.0	18	38.3	11	38.3	22	35.7	16	42.3

When perceived usefulness of webinars, blogs, or Twitter for improving professional practice was compared across the years of service for the five groups (Table 6), again no significant differences were found among the groups (Usefulness of Webinars, $H(4)$ = 3.976, $p>0.05$; Usefulness of Blogs, $H_{(4)}$ = 3.983, $p>0.05$; Usefulness of Twitter, $H_{(4)}$ = 2.121, $p>0.05$).

Table 6.

Mean Ranks for Perceived Usefulness of Informal Professional Development Delivery Methods
in Improving Professional Practice by Years of Service

	Years of Service									
	< 3	3-7	8-15	16-25	> 25					
Perceived Usefulness	n	Rank	n	Rank	n	Rank	n	Rank	n	Rank
Of **Webinars** in improving professional practice	9	41.2	20	40.9	11	34.3	21	40.6	14	30.9
Of **Blogs** in improving professional practice	9	46.6	20	38.2	9	42.4	22	39.3	16	31.0
Of **Twitter Feeds** in improving professional practice	10	43.3	17	32.5	10	40.0	22	39.3	16	37.5

Comfort level was also compared for the three primary job responsibility groups: agriculture and natural resources (ANR), nutrition (NUTR), and 4-H youth development (4HYD) (Table 7). Community economic development was not included in the analysis because there were only three respondents. No significant differences among the groups (Creating a Plan, $H_{(4)}$ = 1.897, $p>0.05$; Attending Webinars, $H_{(4)}$ = 3.949, $p>0.05$; Utilizing Blogs, $H_{(4)}$ = 2.420, $p>0.05$; Following Twitter, $H_{(4)}$ = 1.614, $p>0.05$).

Table 7.

Mean Ranks for Perception of Comfort with Informal Professional Development Delivery
Methods by Primary Job Responsibility

	Primary Job Responsibility					
	4HYD		ANR		NUTR	
Perception of Comfort	n	Rank	n	Rank	n	Rank
Creating a learning plan that includes informal professional development methods of learning.	32	37.4	21	30.9	16	35.6

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Attending **WEBINARS** as an informal professional development method of learning.	34	35.2	25	37.5	17	46.6
Utilizing **BLOGS** as an informal professional development method of learning.	32	33.8	22	34.3	17	42.3
Following **TWITTER FEEDS** as an informal professional development method of learning.	34	34.4	24	37.5	15	42.1

The perceived usefulness of webinars, blogs, or Twitter for improving professional practice compared for the three primary job responsibility groups (Table 8) also showed no significant differences among the groups (Usefulness of Webinars, $H_{(4)}$ = 5.348, p>0.05; Usefulness of Blogs, $H_{(4)}$ = 2.436, p>0.05; Usefulness of Twitter, $H_{(4)}$ = 1.498, p>0.05).

Table 8.

Mean Ranks for Perceived Usefulness of Informal Professional Development Delivery
Methods in Improving Professional Practice by Primary Job Responsibility

	Primary Job Responsibility					
	4HYD		**ANR**		**NUTR**	
Perceived Usefulness	**n**	**Rank**	**n**	**Rank**	**n**	**Rank**
Of **Webinars** in improving professional practice	31	33.7	23	32.9	17	44.3
Of **Blogs** in improving professional practice	31	35.0	24	34.0	17	42.8
Of **Twitter Feeds** in improving professional practice	32	33.7	24	36.0	15	41.0

The fourth objective of the study was to gauge faculty interest in organization development, program development, and evaluation PD topics. Faculty members were asked to choose the five most useful PD topics from a list of topics offered during the 18 weeks of the study (Table 9). Writing Impact Reports (n=30; 35.7%) was the most useful, followed closely by Effective Teaching (n=26; 31%) and Personal Growth (n=24; 28.6%). Facilitation Skills (n=22; 26.2%) and Needs Assessment (n-21; 25%) also made the top five list of most useful PD topics offered.

Table 9.

Faculty Ranking of Most Useful
Professional Development Topics
Offered

Content Topic	**n[a]**	**%**
Writing Impact Reports	30	35.7
Effective Teaching	26	31.0
Personal Growth	24	28.6
Facilitation Skills	22	26.2
Needs Assessment	21	25.0
Managing Change	20	23.8
Technology	20	23.8
Program Design	18	21.4

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Building Public Value	17	20.2
Advisory Systems	15	17.9
Writing Grants	15	17.9
Organizational Development	14	16.7
Data Analysis	10	11.9
Coaching	7	8.3
Systems Thinking	6	7.1
21st Century Programs	4	4.8
[a]This was a multiple response item.		

The final objective of the study was to determine Extension faculty's preferences for frequency and timing of electronic PD offerings via blogs. The most commonly selected option for frequency of postings was 1-2 times per month (n=40; 48%). None of the faculty was interested in daily PD posts. Faculty also indicated that Fridays (n=30; 35.7%) and Mondays (n=25; 29.8%) were the best days for reading the posts (Table 10). A themed set of posts (n=46; 69.7%), e.g., Advisory Systems week, was more popular than random topics (n=20; 30.3%).

Table 10.

Extension Faculty's Blog Preferences

	n	%
Frequency of Postings		
4-5 times per week	0	0.0
2-3 times per week	3	3.6
1 time per week	15	17.9
1 time every two weeks	3	3.6
1-2 times per month	40	47.6
I do not want to read blogs	23	27.4
Preferred Day(s) for Reading Posts[a]		
Monday	25	29.8
Tuesday	16	19.0
Wednesday	15	17.9
Thursday	14	16.7
Friday	30	35.7
Saturday/Sunday	4	4.8
[a]This was a multiple response item.		

Discussion

The study reported here provided validation of the barriers to using blogs for PD. Time was the most frequently cited obstacle, which supports findings from Diem et al.'s (2011) study. Like other forms of PD, informal experiences like reading blogs must be planned. Participating in webinars and tweet chats is easier because they are scheduled by a host. If, however, a person plans to read blogs or listen to or read archived versions of webinars or tweet chats, then a specific strategy is needed to incorporate this into the schedule, making it part of a formalized plan.

Not surprisingly, faculty were more comfortable with technologies they used more often (i.e., webinars). The last few years have seen a plethora of webinar-based PD offerings. Hubbard and Sandmann (2007) described the utility of the Diffusion of Innovation (Rogers, 2003) theoretical framework within an Extension PD and evaluation context, while Alston, Hilton, English, Elbert, and Wakefield (2011) more recently used it to understand where people were in their adoption of technology use. This framework uses the familiar innovator, early adopter, early majority, late majority, laggard terminology to explain the spread and adoption of ideas and technologies (Rogers, 2003).

Understanding where Extension professionals are on the adoption curve can inform training efforts. O'Neil, Zumwalt, and Beckman's (2011) findings indicated that Twitter (78%) and blogs (56%) were rarely or never used. In the study reported here, the majority of the people were not comfortable with using blogs or Twitter for PD, nor did they perceive them as useful in improving their professional practice. Training efforts must address the technology barriers, namely planning time for informal PD, as well as addressing how understandable, well-matched to current practices, cost effective, visible, and easy to experiment with the platform is (Hubbard & Sandmann, 2007), before adoption of this PD medium can occur. As these delivery methods mature, we hope to see both comfort in using and perception of usefulness to professional practice increase.

Interestingly, the influence of both years of service and primary job responsibility on Extension faculty's comfort with and perception of usefulness of online and social media methods of PD was enlightening. The very lack of significance indicates that Louisiana has a very homogeneous faculty as it pertains to the variables explored. This is valuable information for planning technology-driven PD trainings because knowing that the technology acceptance and adoption rate is the same across faculty groups permits a uniform approach to training.

Developing comfort for personal use in a PD context may also well be the bridge needed to increase Extension professionals' willingness to transition their own programs to online delivery. As Diem et al. (2011) emphasize, misperceptions about the relationship-building capability and meaning of virtual program delivery have contributed to resistance to online and social media delivery systems. Diem et al. (2011) and Seger (2011) both call for demonstrating how to effectively use technology in program delivery. Those with PD responsibilities can assist by building programs that exhibit the breadth of delivery methods with an emphasis on online and/or mobile delivery. Liu (2007) also makes a valid point that seeing technology used effectively does not necessarily lead to a transfer of learning; i.e., Extension professionals seeing technology used in a professional development context does not mean they can then effectively use technology for delivering their own programs. Modeling how to use webinars, blogs, Twitter, and other media for program delivery would enhance understanding of how to make complex program design decisions involving these delivery methods. Extension professionals would benefit from examples of appropriate content for blogs, Twitter, and webinars, and suitable approaches to delivery (information sharing, knowledge construction, social interaction).

Given the increased emphasis on accountability (Baughman, Boyd, & Kelsey, 2012), it was not surprising that faculty were most interested in improving impact report writing skills. Convincing our audience to seek out and use informal PD resources seems daunting, yet understanding their needs helps us create content that they are intrinsically motivated to use. As with any program, needs assessment for PD program planners is a critical part of the process as it not only uncovers content needs but also delivery method preferences. The study reported here provides insight into both the frequency and timing of PD programs, particularly those offered via online or social media outlets. In Louisiana, it would appear that Friday is an excellent day to offer or publish online training. This type of information may prove valuable on a national scale as Extension webinars and blogs are developed. Including questions about delivery method preferences would build a foundation for informed program delivery.

Conclusions

As Extension enters a new era of program delivery, one where face-to-face training is falling prey to budget and time constraints, the demand to move PD opportunities to a cost- and time-effective delivery mode is increasing. Blogs are one approach to meeting that demand. Although currently classified as informal training, their potential for meeting the PD needs of Extension professionals may encourage their consideration as part of a more formalized PD plan. Another benefit of using this delivery method is increasing Extension professionals' confidence in their ability to use this delivery method for their own programs. Reaching our 21st century clientele, whether they are internal or external to our organization, is the challenge of our future.

References

Alston, A., Hilton, H., English, C., Elbert, C., & Wakefield, D. (2011). An analysis of the North Carolina extension service's role in bridging the digital divide. *Journal of Extension* [Online], 49(6) Article 6RIB1. Available at: http://www.joe.org/joe/2011december/rb1.php

Anderson, T. (2005). Distance learning – social software's killer ap? *Open and Distance Learning Association of Australia*. Retrieved from: http://auspace.athabascau.ca/bitstream/2149/2328/1/distance_learning.pdf

Barger, J. (1999). *Weblog resources FAQ.* Retrieved from: http://www.robotwisdom.com/weblogs/

Baran, B., & Cagiltay, K. (2010). Motivators and barriers in the development of online communities of practice. *Eurasion Journal of Educational Research*, 39, 79-96.

Basiel, A., & Howarth, M. (2011). Models of webcasts and webinars: Towards interactive new-media webcasts. *Middlesex Journal of Educational Technology*, 1(1), 30-43.

Baughman, S., Boyd, H., & Kelsey, K. (2012). The impact of the government performance and results act (GPRA) on two state cooperative extension systems. *Journal of Extension* [Online], 50(1) Article 1FEA3. Available at: http://www.joe.org/joe/2012february/a3.php

Boulos, M., Maramba, I., & Wheeler, S. (2006). Wikis, blogs and podcasts: A new generation of web-based tools for virtual collaborative clinical practice and education. *BMC Medical Education*, 6, 41-49.

Carlson, E. (2009). Podcasts, blogs, and webinars. *Orthopaedic Nursing*, 28(1), 25-26.

Diem, K., Hino, J., Martin, D., & Meisenbach, T. (2011). Is Extension ready to adopt technology for delivering programs and reaching new audiences? *Journal of Extension* [Online], 49(6) Article 6FEA1. Available at: http://www.joe.org/joe/2011december/a1.php

Fields, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Thousands Oaks, CA: Sage.

Grosseck, G., & Holotescu, C. (2008). Can we use Twitter for educational activities? *Proceedings of the International Scientific Conference for eLearning and Software for Education*, 4. Retrieved from: http://www.cblt.soton.ac.uk/multimedia/PDFsMM09/Can%20we%20use%20twitter%20for%20educational%20activities.pdf

Herring, S., Scheidt, L., Wright, E., & Bonus, S. (2005). Weblogs as a bridging genre. *Information Technology & People*, 18(2), 142-171.

Honeycutt, C., & Herring, S. (2009). Beyond microblogging: Conversation and collaboration via Twitter. *Proceedings of the Forty-Second Hawai'i International Conference on System Sciences*, 42. Retrieved from: http://ella.slis.indiana.edu/~herring/honeycutt.herring.2009.pdf

Hou, H., Chang, K., & Sung, Y. (2009). Using blogs as a professional development tool for teachers: Analysis of interaction behavioral patterns. *Interactive Learning Environments*, 17(4), 325-340.

Hubbard, W., & Sandmann, L. (2007). Using diffusion of innovation concepts for improved program evaluation.

Journal of Extension [Online], 45(5) Article 5FEA1. Available at: http://www.joe.org/joe/2007october/a1.php

Instone, L. (2005). Conversations beyond the classroom: Blogging in a professional development course. *Proceedings of the Australasian Society for Computers in Learning in Tertiary Education*, 22, 305-308. Retrieved from: http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/34_Instone.pdf

King, A. (1994). Guiding knowledge construction in the classroom. *American Educational Research Journal*, 31(2), 338-368.

Knowles, M. (1973). *The adult learner: A neglected species*. Houston: Gulf Publishing Company.

Lefoe, G., & Meyers, W. (2006). Modelling [*sic*] blended learning environments: Designing an academic development blog. *Proceedings of the Australasian Society for Computers in Learning in Tertiary Education*, 23, 451-454. Retrieved from: http://www.ascilite.org.au/conferences/sydney06/proceeding/pdf_papers/p214.pdf

Leslie, P., & Murphy, E. (2008). Post-secondary students' purposes for blogging. *The International Review of Research in Open and Distance Learning*, 9(3). Retrieved from: http://www.irrodl.org/index.php/irrodl/article/view/560/1099

Leuhmann, A., & Tinelli, L. (2008). Teacher professional identity development with social networking technologies: Learning reform through blogging. *Educational Media International*, 45(4), 323-333.

Liu, T. (2007). Teaching in a wireless learning environment: A case study. *Educational Technology & Society*, 10(1), 107-123.

Loving, C., Schroeder, C., Kang, R., Shimek, C., & Herbert, B. (2007). Blogs: Enhancing links in a professional learning community of science and mathematics teachers. *Contemporary Issues in Technology and Teacher Education*, 7(3), 178-198.

O'Neil, B., Zumwalt, A., & Beckman, J. (2011). Social media use of cooperative extension family economics educators: Online survey results and implications. Journal of Extension [Online], 49(6) Article 6RIB2. Available at: http://www.joe.org/joe/2011december/rb2.php

Reinhardt, W., Ebner, M., Beham, G., & Costa, C. (2009). How people are using Twitter during conferences. *Proceedings of the EduMedia Conference*, 5, 145–156. Retrieved from: http://lamp.tu-graz.ac.at/~i203/ebner/publication/09_edumedia.pdf

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.

Seger, J. (2011). The new digital [st]age: Barriers to the adoption and adaptation of new technologies to deliver extension programming and how to address them. Journal of Extension [Online], 49(1) Article 1FEA1. Available at: http://www.joe.org/joe/2011february/a1.php

Stevens, V. (2008). Trial by Twitter: The rise and slide of the year's most viral microblogging platform. *The Electronic Journal for English as a Second Language*, 12(1). Retrieved from: http://www.tesl-ej.org/wordpress/issues/volume12/ej45/ej45int/

Twitter.com (n.d.). About Twitter. Retrieved from: http://twitter.com/about

West, R., Wright, G., Gabbitas, B., & Graham, C. (2006). Reflections from the introduction of blogs and RSS feeds into a preservice instructional technology course. *TechTrends*, 50(4), 54-60.

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