Podcasting Agriculture News: Producing Portable Audio News for Farmers and Ranchers

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Abstract

This article focuses on an emerging technology called podcasting as a new source of Web audio news distribution. Podcasting derives from the words *iPod* (Apple Inc.'s MP3 audio player) and *broadcasting*. Audio content, such as news, is compressed into MP3 audio file format and can be automatically downloaded to a computer by subscribing to a Web site's RSS (Really Simple Syndication) feed. The audio file can be transferred to a portable MP3 player, which can be listened to at the user's convenience in just about any setting. The audio files can also be burned onto a CD-ROM and played in an automobile, or listened to on a desktop computer. There is an absence of agriculture news in some rural radio markets; podcasting can fill that void with a variety of news and educational programming, targeting both agricultural producers and the general public. Podcasting is an attractive technology to land-grant institutions with news divisions. The technology can be easily implemented without purchasing expensive transmitters and satellite time. Most institutions already have computers and servers, which are the only tools necessary to begin podcasting. Texas A&M University System Agricultural Communications adopted the technology in October 2004, targeting agricultural producers, general news consumers, and news media. Though it is still a new technology, podcasting has been embraced by the mass media, including CNN, *The New York Times*, *The Wall Street Journal*, and other national news organizations. This article provides more information about the Texas A&M experience with this emerging medium.

The absence of farm radio in some rural markets has left them devoid of agriculture news. Anecdotal evidence of this void in Texas came to us from a cow-calf producer in the southern part of the state who found *Agnews Weekly*, a Texas A&M agriculture Web news podcast (E. Opiella, personal

communication, April 1, 2005). He said the podcast fulfilled a need for news that was not being met by the newly acquired radio station in his hometown.

Podcasting is an appealing new method of audio news distribution because it bypasses traditional radio media outlets to reach agricultural producers and general news consumers. There is no significant investment and no sole dependence on radio stations to air news reports. Podcasting can help fill the absence of farm radio news programming in certain rural markets and can target both agricultural producers and the general public.

For those new to podcasting, the term derives from the words *iPod* (Apple Inc.'s MP3 audio player) and *broadcasting*. Audio content, such as news, is compressed into MP3 file format to be downloaded to a computer and transferred to a portable MP3 player for listening. The audio files can also be listened to on a personal desktop computer or burned onto a CD-ROM and played in an automobile.

While downloadable audio files have been available for many years on the Internet, the key component to podcasting is its subscription method via Really Simple Syndication (RSS). Users who download software capable of subscribing to RSS podcast audio feeds can automatically download MP3 files to their computers without having to visit a Web site. When the iPod or MP3 player is connected and set to synchronize with the computer, those new audio files are transferred to the player and are available for listening.

Usage of MP3 players is growing at an extremely fast rate. Apple Inc. reported sales of 22.5 million iPods in 2005 (Securities and Exchange Commission, 2006). News organizations and some public radio stations, including National Public Radio (NPR), now offer audio content via podcasts. *The New York Times* and *The Wall Street Journal* have also adopted the technology. Podcasts can be downloaded and consumed at the listener's convenience. Many individuals listen to podcasts while commuting to work, traveling by air, working out at the gym, and walking.

Texas A&M University System Agricultural Communications adopted podcasting technology in October 2004. The main appeal of experimenting with the technology was the ability to distribute audio news that was portable and to provide agricultural producers and general news consumers with content not offered by traditional radio.

Another attraction was that podcasting requires neither a cash outlay for satellite time nor a contractual agreement with a broadcasting company for distribution. The only drawback to the technology was that it was in its infancy. But this potential new way to deliver farm and ranch audio news beckoned for experimentation—even if it might end in failure.

In the end, the results indicated the technology is effective in delivering news to agricultural producers who aren't serviced in some rural markets. It also provides time-shifted content for individuals who lead busy lifestyles and want to listen to news when they have time.

The project began strictly as an experiment and had no budget. Available equipment in the department was used to get the project going.

As a result of the effort and of feedback from listeners, it has become clear that podcasting is an attractive technology to land-grant institutions with news divisions. It can be easily implemented without purchasing expensive transmitters and satellite time. Most institutions already have computers and servers—podcasting's key distribution components.

Methods

Texas A&M University System Agricultural Communications currently produces podcasts for its news site (http://agnews.tamu.edu) and for a weekly news podcast called *Agnews Weekly* (http://agnewsweekly.tamu.edu). *Agnews Weekly* is a program that spotlights Texas Cooperative Extension and Texas Agricultural Experiment Station research, educational programs, and current issues. I came up with the idea for the program since I regularly gather news from specialists with both agencies. The program can be found at http://agnewsweekly.tamu.edu.

I began the podcasting project as an experiment, first producing *Agnews Weekly*. Since I had no budget, I searched for existing equipment in the department to produce the podcasts.

Interviews with extension specialists and experiment station scientists were captured using a portable Olympus D330 digital audio recorder ($149) and an external XLR microphone (most commonly used by television reporters). Since I was already conducting print interviews with specialists and researchers, adding an audio interview was a simple task.

The interviews were uploaded to an Apple PowerBook laptop and listened to through a pair of computer headphones. The audio interviews were edited using Audacity audio editing software (available at http://audacity.sourceforge.net). An available Apple G3 computer in the department was used as the *Agnews Weekly* server.

As the project began to show its merit as a novel news distribution method, administrators allocated additional funds in 2006 for purchases of Marantz PMD660 professional digital audio field recorders ($500), improving the sound quality of interviews. Shure external microphones ($100) with XLR connections to the recording unit are currently used. The external microphone also has a windsock to block noises while recording. Depending

on how quickly news interviews need to be conducted, interviews are sometimes also captured on an Apple iPod with a plug-in microphone. The audio interviews are now edited using Apple Computer's Garage Band software. The edited audio file is compressed into an MP3 file and uploaded to a server.

The program's contents are coded into an RSS file and placed on a server. RSS is becoming a widely adopted technology. Texas A&M University System Agricultural Communications first began offering RSS feeds of its news in September 2003, making it one of the first land-grant institutions in the United States to make this technology available.

RSS feeds are files that reside on a server. The coding used for these feeds resembles standard HTML. RSS feeds can include enclosures that contain code linking to audio or video files on the Web. Users who run software programs that are capable of subscribing to RSS podcast feeds can automatically download audio files to their desktops. The software program regularly visits specified Web sites, checking the RSS feed file to see if a new audio file has been posted. This means that users no longer have to manually check Web sites to see if fresh audio content has been added.

In this way, individuals can subscribe to the Texas A&M RSS podcast feed and automatically receive audio news content, which can then be synched to their MP3 players. Users can also download the MP3 file and listen to it on their desktops or burn the MP3 file to a CD-ROM. Users can download and listen on either PCs or Apple computers. The technology is not platform-specific.

Results

As podcasting grew through the end of 2004, Adam Curry, a former MTV video jockey, created a clearinghouse for podcast programs at http://www.ipodder.org. Curry co-developed podcasting technology with Dave Winer, a software engineer.

After a request to Curry, Texas A&M's *Agnews Weekly* program became the first land-grant institution to be listed under the agriculture category (A. Curry, personal communication, November 17, 2004). The *Agnews Weekly* listing was made available at http://www.ipodder.org/directory/4/podcasts/categories/agriculture/forIndustrialAgriculturalAndLargeProducergrowers.

Other sites have been created to promote various podcasts. Sites listing *Agnews Weekly* include http://www.podcastalley.com/, http://www.digitalpodcast.com/, and http://www.podcastingnews.com/. These sites offer free podcast listings, which create additional advertising and

marketing avenues for the *Agnews Weekly* podcast without cost. However, as the project has grown, we have realized that a marketing campaign would help increase awareness.

In June 2005, Apple Inc. debuted iTunes 4.9, which features a listing of podcasts as part of its iTunes Music Store. The podcast listings allow site visitors to subscribe and download free audio content through its music store. *Agnews Weekly* is included as a free listing (http://phobos.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=73329830) in these podcast offerings—providing yet another free marketing avenue for Texas A&M Agriculture Program news. It is estimated that Apple's iTunes Music Store attracted 20.7 million visitors through December 2005 (Nielsen/NetRatings, 2006).

Usage statistics have been recorded for the *Agnews Weekly* podcast since the project first began in October 2004 (see Table 1). Though requests for the RSS feed throughout the day can be multiple, the number of hits and amount of downloaded audio provide some measurable data on usage.

Table 1. *Monthly Agnews Podcast Usage Statistics, October 2004 to December 2005*

Agnews Weekly podcast	Hits to RSS feed	Number of MP3 downloads
October 2004	1,620	3,748
November 2004	5,059	9,836
December 2004	10,152	1,858
January 2005	7,827	7,101
February 2005	13,195	9,242
March 2005	16,974	3,135
April 2005	15,703	6,341
May 2005	16,759	4,956
June 2005	21,447	3,714
July 2005	24,021	7,576
August 2005	25,566	3,311
September 2005	21,720	5,824
October 2005	32,597	6,633
November 2005	26,479	7,543
December 2005	28,813	3,498
Totals	267,932	84,316

Note. Agnews Weekly server statistics

Professional Development

The following *Agnews Weekly* podcasts have been downloaded the most since the project began:

Oct. 27, 2004   Podcast featuring an interview with Jose Pena, extension economist, discussing the Texas pecan harvest (3,131 downloads).

Nov. 24, 2004   Podcast featuring Dr. David Anderson, extension beef economist, providing commentary on a suspected case of mad cow disease in the U.S., which was later found to be a false alarm (2,553 downloads).

March 11, 2005   Podcast featuring an interview with Dr. Parr Rosson, extension economist, with perspective on recent action by the WTO and the ruling that U.S. cotton subsidies create unfair trade (3,135 downloads).

The project attempted to target agricultural producers, but its reach expanded to general news consumers. The following e-mail messages were received from listeners:

Huge fan of podcast. I'm not sure that I'm similar to the rest of your audience since I work in New York City. I was raised in cattle country in California, so I'm familiar with your topics. I mostly enjoy listening at home or on my iPod in the subway on my way to work. (G. Rutter, personal communication, April 29, 2005)

We produce milk, beef and lamb on 700 acres of pasture located in Ayrshire county of Scotland. I get your podcast via iTunes. I am 45. (J. Macfarlane, personal communication, June 8, 2006)

I'm not sure how far away your regular listeners are, but I'm a pretty far piece from College Station here in Chicago. Been listening to your podcast and have been enjoying it. My father was a professor-farmer in Southern Indiana, so hearing about hay usage, crop planning and ag extension is a lovely tie to the past. Keep up the good work and interesting programming! (E. Sinclair, personal communication, December 11, 2004)

What neat possibilities this technology could have for us. We found out about *Agnews Weekly* after visiting with our son who is the Web development director at CNN. (M. Chernesky, personal communication, February 15, 2005)

I downloaded the podcast and put on my iPod so my father could listen to it on the way to the deer lease. He is a part-time cattle rancher. (C. Martin, personal communication, November 11, 2004)

The podcasting project also drew interest from mass media. Web developer Chris Mills with the *Philadelphia Daily News* requested Texas A&M University System Agricultural Communications' technological expertise on how to implement podcasting in the national newspaper's newsroom (C. Mills, personal communication, February 23, 2005). The newspaper planned to outfit reporters with digital audio recorders while out in the field gathering news stories.

Land and Livestock Post (April 21, 2006), *Gulf Coast Cattleman* magazine (June 2006), and *Country Guide* (May 2006), a Canadian agricultural magazine, have featured the podcasting technology project at Texas A&M in their publications.

While it's unclear whether podcasting will become a standard application on the Internet, it's predicted that usage will increase over the next five years (Diffusion Group, 2005). This may lead to serious discussion among news organizations about how to distribute online news in both text and multimedia. Table 2 provides data on predicted podcast use through 2010.

Table 2. *Predicted Podcast Use Through 2010*

Year	Predicted users (in millions)
2005	4.5
2006	11.4
2007	21.7
2008	32.9
2009	44.1
2010	56.8

Source. The Diffusion Group, June 2005

Discussion

Podcasts can be listened to at any time the user desires. Today, large media companies often control radio station ownership. Typically, programming is distributed via satellite to large groups of stations, therefore reducing the amount of locally generated news. It's anticipated these large media companies will identify podcasting as a new distribution method in the future.

Podcasting bypasses traditional media. Instead of Texas A&M University System Agricultural Communications having to pitch audio news to radio outlets, we send the information directly to our audience via an RSS podcast feed with audio through the Web.

As cell phones and other portable devices begin to incorporate audio features, podcasting will likely play a larger role in news delivery, particularly if wireless Internet access is made available in tractors and other vehicles. This would allow agricultural producers to access and consume podcasts and other online news while in the field.

Podcasting provides new ways to target general consumers and agricultural producers with audio news content. Further, podcasting may appeal strongly to younger audiences, who are more inclined to use portable MP3 player devices. And, as shown by the Texas farmer introduced at the beginning of this article, there are agricultural producers who are willing to try new technology in parts of the country where agriculture news is not available through traditional radio airwaves.

About the Author

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Keywords

podcasting, radio, agriculture news

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