

Note: This thesis has been edited for the Web, and does not include interviews of several subjects from news organizations included in the research. The subjects did not want to be included in the published Web version due to company policies on publication.

Getting in-line with online: Has local news video reached 2.0?

The landscape of video news under converging media and the move to online: an analysis of Twin Cities news web sites' use of video.

By Vadim Lavrusik, University of Minnesota undergraduate degree, B.A. Professional Journalism, summa cum laude thesis

Introduction and Overview

In the early to mid-2000s, newspapers, TV stations and almost every medium scrambled to produce video for the Web. The idea was to get it up on the Web as quickly as possible, without thinking about what actually works and what the best approach to news video is for the Web. TV stations took their story packages and threw them up on the Web, while newspapers began developing video stories that told the story through a series of cuts and interviews of key sources involved. By 2008, newsrooms across the country embraced the importance of investing in multimedia, such as in the case of The Miami Herald, which made sure each department had a multimedia team so that they would “have the same ownership of (and passion for) their Web channel as they have for the print section,” Managing Editor/Multimedia Rick Hirsch said (McLellan). In

February 2008, Web users viewed 10 billion videos, according to comScore, an Internet measurement firm (Lipsman). This was a 66 percent growth from February 2007, the firm found. And the numbers have continued to grow dramatically with each month. One of the largest investments into online video was perhaps NBC's coverage of the 2008 Summer Olympics ("The State of The News Media"). The network created a site dedicated to the games and displayed 2,000 hours of streaming video events (Shields). As a result, the viewers came in record numbers for the network's coverage online; pulling in more than double the online viewership of the 2004 Summer Olympics and the 2006 Winter Olympics combined (Stelter). By October 2008, viewers watched 13.5 billion videos. (Castro). Locally, news organizations like the Star Tribune began to increase their production of video for the Web. In June 2008, the Star Tribune added weekly video programs and quickly saw results, with 200,000 unique visitors viewing video on its site in September 2008, a 41 percent increase from June.

Despite these local efforts to increase production of online video, have the local news sites reached 2.0? Where are content and production now, and where are they going? Have local news sites, newspaper and broadcast alike, found a consistent design and placement of video? What about player tools available, such as embedding? Are the players easy to use for viewers? Are the video players easy to find and use? With the current economy, is there any hope for making money with online videos? In an attempt to answer these questions, 10 local news organizations were used as case studies with their Web editors weighing in on what is working in the areas of video content, design and presentation, usability and advertising, as well as their strategies and where they think multimedia is going in the online news business.

Methodology

The design and content analysis were conducted during the period of January 20, 2009 to March 10, 2009. Each local site's video content, design and presentation, usability, and advertising were analyzed. Content analysis included reviewing the video content featured on the site. This portion also incorporated a calculation of an average video length, which was done by averaging the length of 10 most recent videos on the site. Design and presentation analysis was conducted by documenting the placement and features of the video players on the site during the period stated. As a note of clarification, some of these design and presentation elements may have changed since the date of conducted analysis. Furthermore, the usability analysis was conducted by documenting general user-interactions with the video players and their functionality. Functions, such as playing usability, were tested with each player and documented. Finally, the advertising segment was determined largely through interviews with corresponding editors, though functionality was tested with each site listed.

Site List

- Star Tribune (www.startribune.com) – Newspaper
- Pioneer Press (www.twincities.com) - Newspaper
- Minnpost (www.minnpost.com) – Online-only News Website
- The Minnesota Daily (www.mndaily.com) – College Newspaper
- WCCO (www.wcco.com) – Broadcast station
- KSTP (www.kstp.com) – Broadcast station
- KARE 11 (www.kare11.com) – Broadcast station
- FOX 9 (www.myfoxtwincities.com) – Broadcast station
- Minnesota Public Radio (www.mpr.org) – Radio station
- Minnesota Sun Newspapers (mnsun.com) - Newspapers

The Star Tribune:

The Star Tribune is a newspaper that has the luxury of creating all of its videos for the purposes of the Web, unlike repackaged news broadcast videos that tend to be too long and that are formatted for a TV newscast. The Star Tribune can create its

videos based solely on what Web video that audiences are attracted by and used to. Generally, most of the Star Tribune video seems to accompany stories, which is good because not only are they more attractive to readers and are more likely to get played, but are also more visible on search engines because of Web bots scouring the text on the page. The Star Tribune also does a great job of making videos visible on multiple navigation levels. The site includes videos in stories, links to them from the story sidebar, and includes a player on the front page of the site and in the multimedia page and video subsection page. The Star Tribune also has many videos that are themed as weekly – some even daily – webisodes, similar to shows a TV news station might have. This is interesting because most videos produced on other sites, such as the Pioneer Press, are ones that are stories with strong visual elements. The Star Tribune includes content that has its reporters or columnists featured in the video itself, doing stand-ups or explaining the story on camera. The Star Tribune is a good example of how online is forcing news organizations to combine into one medium that incorporates print, audio, video and more.

Pioneer Press:

The Pioneer Press has a very nice video interface and player but struggles incorporating the video with stories and focuses its video production independent of its video stories. The Pioneer Press also does not display the video very prominently, which is evident through the fact that no links to video or multimedia are even featured in the navigation bar. The videos are mostly feature-based stories, and typically do not include any breaking news footage. It also does not produce as many stories as its competitor, the Star Tribune. The Pioneer Press also seems to have no consistency in how it displays videos, sometimes showing them as a linkable story on the front page labeled as "Video:

headline here,” while others are in a permanent “Media Café” spot that features videos on the front page. The site also includes a few user videos, but does not incorporate or publish Associated Press videos. Overall, it appears that the Pioneer Press has not invested into video much and is still trying to figure out how to display it on its site, experimenting with embedding the video player with its text story counterpart.

Minnpost.com:

For being an online-only news source, Minnpost struggles to incorporate new media into its website. Most of the videos are not originally produced, which for a news source that prides itself on quality discredits Minnpost's ability to produce quality video journalism. It is also quite difficult to find the multimedia page on the site, which is linked at the bottom navigation of the site, not the header. Moreover, the site does not do a good job of categorizing its multimedia content, not only by content type, such as news, sports, entertainment, but also media type. Allowing users to sort through its videos based on the subject matter would better categorize videos and make it easier for users to find the type they are looking for. Minnpost does not seem to distinguish original content on its multimedia page and its “Minnclips” page, which is an aggregator page of videos on Minnesota-based stories from various news websites. Generally, Minnpost uses a new-generation medium in an old-school way of mostly telling stories through text. There is very little consistency in how often or what types of video stories are produced and a standard for where to feature them. The video player that is used for original, in-house stories is very generic and does not include a way to embed the video or link to it.

The Minnesota Daily:

The Minnesota Daily features its videos on the front page and quite prominently, but struggles to incorporate some of the basic tools that should be included in a player to help it get more plays, such as linking, sharing and embedding the video. The player has a clean, rectangular design, but suffers from poor usability from excluding features that most users expect, such as a play button on the screen of the player. The site is working on developing a way to better tie videos with stories, aside from just embedding a sidebar link into the print story, which could also help the video content become more visible. Also, there is very little categorization of videos in the video section page, aside from including the headline of the video in specific content sections (i.e. a fashion video appearing in the fashion section of arts and entertainment). Generally, the multimedia page needs a cleaner design in its featured multimedia content. Disclosure: I served as the editor in chief of The Minnesota Daily and oversaw the development of the website from fall 2008 to spring 2009.

WCCO:

WCCO is a broadcast station that does a good job of utilizing and featuring its videos prominently on the Web through user-friendly navigation, categorization and design of the player. One of the biggest differences with WCCO in comparison to a print source website is it gives multiple ways to view videos and provides many options for watching the videos on the Web. After all, video is its primary medium. Users can view the player in a pop-out window, view videos in the video library, sort by section, view videos with text stories and more. WCCO simply provides almost every means by which a person might want to watch the video, suggesting that the designers believe there is some value in redundancy. However, when it comes to design and displaying of videos, WCCO still seems to somewhat separate text from video by displaying the player in the

right sidebar. Though this keeps the design and location of the player consistent throughout the site, featuring the video as the main visual element in a print story may give it more views.

KSTP:

KSTP is a broadcast station that seems to still be finding the best way to shape video on its website. The site does a nice job of featuring its videos prominently at the center of the page, but struggles in categorizing the content and making the website easy to navigate. Moreover, the player has some serious design flaws, such as featuring text that is virtually unreadable because it is so small. Aside from having useful tools to share the video, the headline appears too small, as well as the related videos featured at the top of the player. Like most broadcast stations, KSTP has the challenge of adapting its news cast videos and tailoring them for the Web. KSTP also seems to rely heavily on Associated Press content and not original content, which could damage its reputation for being able to produce such content and take away views from its originally-produced stories. Online producers from KSTP did not respond to multiple requests for an interview for this thesis.

KARE 11:

KARE 11, similar to WCCO, does an excellent job of making it easy for users to find its videos by labeling stories with video icons, including multiple links for video in navigation bars and allowing users to search for video-specific content. Its player also offers the most options for the user, from sharing the video, rating it, selecting it for a playlist and more. However, one key fundamental flaw is the player is missing a volume control, which is necessary for all video players. The player is also consistently featured in the same spot of the sidebar, though it often takes too long to load and could make it

confusing for the reader to find. KARE 11 also uses frequent pre-roll advertising. It uses an ad before every video played, which could become cumbersome for its viewers, though clearly providing a revenue source.

FOX 9:

FOX 9 recently re-designed its site and took on some major improvements for video, most notably the video players sharing components, FOX 9 Web Producer Mike Durkin said. The structure follows a tab system, allowing people to have more control of the content that they view, without having to load a new page. This way the reader can stay on the front page longer, the place where news sites get most exposure and views. It also allows the site to include much more of its sections and stories on the front page, without forcing the reader to scroll down the page. However, this design aspect still has some usability issues with redundancy. FOX 9 does not feature a video player on its front page or identify its stories with videos well, thus failing to highlight the site's vast library of video content.

Minnesota Public Radio:

Minnesota Public Radio's website is clearly focused on incorporating its audio broadcast and embedding it with print stories on the Web. It does have video, which mostly consists of in-studio visits for its music sister station, The Current, but not independent stories that are separate from its radio content. The site also struggles to incorporate video or feature it prominently on its site. Most of the video content is secondary to print and audio. Moreover, the site has a variety of navigation issues, making it difficult to find the video content available. It seems that the site does not have a clear strategy with its video content, much of which is done with poor quality and editing.

MN Sun Newspapers:

The MN Sun Newspapers website is incorporating video with its print-based story content. The site does a good job of featuring its video content prominently, prioritizing it before sports and Legislature sections. The site also enables users to submit video comments on stories, unique to all sites featured in this content analysis. The MN Sun continues to make progress on its in-house video player, adding embed capabilities such as allowing the user to embed the video player on other sites, and displaying its site logo within the player image. Though such an effort and prioritization for a community news site is commendable, the video quality and editing could use plenty of work.

Video Content: Still experimenting

Online video viewership will continue to grow. It is estimated that viewers watch almost six hours of online video per week (Hardesty). But how much have news organizations learned about how to produce video content for the Web? Well, it is clear that news organizations are still in an experimentation stage with online video, while still facing the challenges of moving online. But that is not to say that bright spots and direction of content are not emerging from the current experimentation.

Challenges amid convergence:

It is clear that repackaging TV video to the Web is not always the most effective method (Digital Journalist). People expect shorter pieces on the Web than the typical length of a news cast. People have shorter attention spans when they watch video on the Web, and news organizations need to treat online as its “own animal,” because that is what it is. In broadcast, stories are very broad and for large audiences, but online it is

very niche and one has to have the ability to categorize video because of the expectations and demands of the Web viewer. However, broadcast news sites are adding more text, blogs, still pictures and audio to their video-rich Web sites, according to a RTNDA/Hofstra University Survey that compared local TV websites from 2006 to 2007 (“The State of The News Media”).

Though newspapers have the luxury of producing videos that are specific to websites, some of the sites are faced with an opposite dilemma of having too much text and not enough video. Chris Clonts, the senior Web editor at the Pioneer Press, said the Twincities.com website gets 20,000-25,000 video plays per month, though it could get many more. He characterizes the numbers as “low to average” for an organization similar to its size. Clonts said this is because Twincities.com is a text-driven site and viewers are not used to having the video there, which Clonts predicts will change with the embedding of video within text stories. Weekly newspapers, such the Minnesota Sun Newspapers organization that publishes 42 community newspapers, has had to adapt to challenges of culture. MN Sun has taken weekly reporters and made them into daily reporters for the Web who also help with video production. As a whole, MN Sun Newspapers now create about 60 videos per week for the website, most of which are daily Web casts from its newspapers.

Minnpost, a local, online-only website, has had difficulty garnering enough resources to produce video, and much of its video content is from other sources. But Corey Anderson, online editor at Minnpost, said that the veteran reporters at the organization have embraced the possibilities of new media and how video can further enhance their stories, and some of the more successful videos receive 2,000 to 3,000 page views.

Minnesota Public Radio also has entered into the business of producing videos and is in the process of hiring a full-time videographer. As a radio station, MPR did not have as great a depth of knowledge or relationship with video as a broadcast website or even a newspaper would have, and it has taken time to learn how to approach it.

Original vs. external content:

Despite the challenge to adapt to a new medium, all of the ten local sites produced original video. The following is a table showing the breakdown by site:

Media:	Content-type (Original, Wire, etc.)
Star Tribune	Original, Associated Press and user generated.
Pioneer Press	Original and user generated.
Minnpost	Original, external: YouTube, MSNBC, ThisweekLive, etc.
The Minnesota Daily	Original only.
WCCO	Original and CBS Network content.
KSTP	Original and Associated Press.
KARE 11	Original and NBC Network news.
FOX9	Original and Fox Network news.
MPR	Original content and user generated.
MN Sun Newspapers	Original and user generated through comments.

As shown above, all but one news organization showcased other sources of video as well, such as Associated Press, a network partner or user-generated videos. The trend toward syndication of online video is expected to increase in the coming year, as websites are realizing it makes more sense to go to the people than expecting them to come to you (Castro). KARE 11 is owned by Gannett Company, which provides all of its websites with shared platforms with a backbone system. This allows content to be shared across the company. The advantage is that it gives small news sites that lack recourse more national content to a local audience. MN Sun Newspapers are starting to think of their site as a community aggregator. That is not to say that the organization will be producing less content. The key will be giving readers more through user-generated

content. FOX 9's senior Web producer Mike Durkin said his site's ratio of original and external content is 50/50, but that is mostly due to having many national stories.

Local news content:

However, despite the use of Associated Press wire videos, Durkin said that local content on FOX 9's site is original because that is what viewers want. Local content is what brings the heavy traffic to KARE11.com. The local visitors tend to stay on the site longer too, according to MN Sun Newspapers' Web numbers. Local event coverage, especially that of local schools, had the most plays for video. Proximity of content-type is just one aspect, and each organization seemed to make different considerations when deciding the type of content to produce and how to produce it.

According to a 2007 Pew Internet and American Life study, news was the most popular category for video, with sports video at number five (Pew Internet). News is also popular among most age groups, though more regularly consumed among people ages 35 to 64 (Vorhaus). Nationally, most newspapers are focusing their video resources toward producing feature stories and covering breaking news. According to a national Newspapers Association of America survey, 93.5 percent of newspapers used video to cover feature stories, with breaking news in second place at 92 percent and local sports at 83.4 percent (Lawton). Corey Anderson from Minnpost said much depends on the organization's core audience. Most of MN Sun's video content is about positive community stories because those subjects are what viewers want to see on that specific site. MN Sun does not use video to cover breaking news, but focuses the content on more visual stories or Web casts. At Minnpost, in-depth video tours of local construction projects of the Target Field and TCF Bank Stadium were both very popular videos, Anderson said, because they were able to show something a print story could not do as

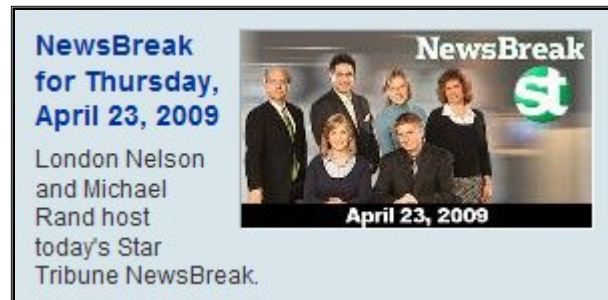
well. That has not stopped these sites from producing content on a variety of subjects because the virality of a video is often unpredictable.

Content trends:

Certain content types and trends seem to be emerging in production, though success has varied. The Star Tribune, for example, began producing weekly webcasts in the summer of 2008 and in March began a weekday,

noon time newscast called “News Break.”

The Star Tribune has tried to get the show up at lunch hour because of an increase in traffic to the site during that time.



Broadcast stations nationwide saw a growth in Web newscasts from 37 percent in 2006 to 48 percent in 2007 (“The State of The News Media”). However, the majorities of these were previously recorded for TV and were not streaming live on the Web.

User-generated content is also a source that many news sites are beginning to tap into. According to a 2008 national Newspaper Association of America survey, out of 213 newspapers that responded, 66.7 percent of newspaper websites were accepting user-generated videos (Lawton). Currently, out of the list of 10 local sites, only the Star Tribune, Pioneer Press, MPR and MN Sun Newspapers include user-generated videos. The Star Tribune categorizes its user-generated content, while MN Sun, for example, includes the capability for users to submit video comments. Across the nation user-generated video has been increasing as a result of more sites willing to host the content (Festa). CNN's iReport.com was re-launched with great success after CNN suspended it in 2007 because users flooded the site with 10 times the content CNN could use (“The



State of The News Media”). The new version closely resembles YouTube, which is predicted to lose some of its market share as the market fragments from competitors like Hulu and others (Castro). User-generated video also adds another reason for viewers to come back to the site (“The State of The News Media”). Durkin from FOX 9 said that user-generated content will be the next big development in online video for his organization and other news sites as well.

The consensus among local news sites is that live video will also be the next step to improving online video and meeting the demands of online users. In 2007, half of all TV news websites included a live traffic and weather camera feed, a 7 percent increase from 2006, according to a survey done by RTNDA/Hofstra University (“The State of The News Media”). Furthermore, in May 2008, FOX's station in Chicago launched a new website that would aggregate live camera feeds at LiveNewsCameras.com, which is currently still in its beta version (“The State of The News Media”). Locally, Clonts from the Pioneer Press said live video has been somewhat overlooked and has great potential for news coverage. Hosting live video would work well because of the urgency of news on the Web, Clonts said, and will give users another reason to return to the site. Local news sites have experimented with live streaming video. For instance, the Star Tribune, KARE 11 and FOX 9 provide live video of election debates, traffic cameras and more. KARE 11 has had great success in streaming live video from Beijing, China during this year's Summer Olympics when they were able to send a reporter. FOX 9's Durkin said its site streams its morning and evening news on the website and streams chopper video for breaking news and traffic, as well as big events in between its newscasts. FOX 9 also has begun streaming some specialty sports weekly shows, which have received a good following. But for most of the sites, live video has not become a regular occurrence. In

the meantime, however, some basic principles in producing video have become standardized.

Producing content:

Online users want and expect shorter videos on the Web, Durkin from FOX 9 said. And most in the industry agree that anything more than three minutes is too long. A December 2007 study by comScore found that the average duration of a video consumed by viewers was 2.8 minutes (Lipsman). Furthermore, certain types of content easily bore viewers. An example is “talking head” video, according to an eyetracking study (Nielsen www.useit.com). The study states that users are easily distracted watching Web video; therefore, content producers should recognize this and use the dynamic medium for stories that involve movement. Locally, the following is a breakdown of the average length of a video based on 10 most recent videos on the site:

Media:	Average length (minutes)
Star Tribune	3.6
Pioneer Press	2.4
Minnpost	5.9
The Minnesota Daily	1.8
WCCO	3.2
KSTP	1.6
KARE11	2.5
FOX9	1.9
MPR	10.6
MN Sun Newspapers	2.9

MPR had the longest average, mostly because the average was compiled from its website hosted videos, not its YouTube account. Its website-hosted videos largely include those that are of in-studio visits by artists for their sister station, The Current. It also had long videos of several political debates. The second longest average was Minnpost’s, mostly due to some in-depth video pieces. The Star Tribune’s average exceeded the 3-minute rule because of some of its lengthy webisodes or newscast-style weekly shows. KSTP,

The Minnesota Daily and FOX 9 had the two lowest averages, consistently featuring shorter videos. Clonts, from the Pioneer Press, said his staff aims for 2-minute videos, but is still working on transitioning to the shorter style. “We need to do a better job of picking our subjects, but that is the goal of the attention span we are going after,” Clonts said. Visual stories are ones that attract large numbers of views online, and context is everything (Bryant). KARE 11 makes sure to include an introduction and conclusion to each video story. Videos include talkback from the anchor that provide additional information not told in the video itself. Because video is still something new to some local sites, not all have grasped principles such as context. The Pioneer Press and The Minnesota Daily, whose videos do not include contextual elements, are mostly told through a series cuts and interviews of subjects involved in the event or topic being shown. Secondly, Durkin from FOX 9 said viewers expect fewer edits and, with the phenomenon of YouTube, the expectation for quality in editing is somewhat lower. However, some research shows the trend of professional quality to be increasing, with a growth of 25 percent in high-quality online video production (Perras). Minnesota Public Radio approaches its production and content outlooks based on the core of its news mission. The site doesn’t do a lot of breaking news or crime reporting, but takes more of an analysis approach. In many ways, however, MPR is still working to determine how to effectively use video and is still experimenting with its use.

A shortfall in resources:

Troubled by economic times and the tumultuous news industry, many of the Web editors at the local news organizations expressed an interest in expanding content, but are lacking the resources and the budget to do so. Most of local news organizations are

having their current employees take on additional Web tasks, instead of hiring new employees to manage the medium (“The State of The News Media”). The news industry is facing difficult times, but the need for news on the Web is 24/7. As with many businesses in general, Minnpost is also tightening its belt, Anderson from Minnpost said. Video is important but also time consuming and expensive to produce, he said. Furthermore, text stories often get more pageviews and take less time to produce. As a result, “video journalism may not necessarily be a top priority. At least not until the economy picks up again,” Anderson said. As the technology get cheaper and economy gets better, Anderson said Minnpost hopes to include video cameras in the journalists reporting “tool kit”.

Design and Location

Video player location:

As multimedia have become more integrated within the reporting operations of newsrooms, so have their place on the news websites. Most of the local news organizations in this study featured a player on the front page or teased videos through thumbnail links to the video or multimedia pages. In fact, six out of the 10 sites featured a player on the front page.¹ Out of the six news sites that featured their player on the front page, only KSTP and WCCO featured theirs above the fold of their front page. The following is a breakdown of where the video player was found on the website:

Video Player Location:	Number of sites (out of 10)	Specific sites (or exceptions)
Featured on front page	6	Star Tribune, Pioneer Press, WCCO, KARE 11, KSTP, MN Sun

¹ These numbers are current as of March 10. Some of the sites may have changed the display and design of its players. Pioneer Press, for example, no longer features a player, but a thumbnail scroll of videos on its front page.

Featured on front page and video/multimedia section	5	Star Tribune, Pioneer Press, WCCO, KARE 11, MN SUN
Video player featured in video/multimedia section only	5	Minnpost.com, The Minnesota Daily, FOX 9, MPR

MN Sun Newspapers is in the process of a website re-design, which will prominently feature breaking news and video side-by-side, above the fold of the front page. The site currently features a scroll box of video thumbnails as the highest content on the front page and includes a video tab, which allows viewers to watch video from the front page.

Pioneer Press Web editor Chris Clonts said its video player is featured on the front to add another visual element to a text-heavy website. Furthermore, the front page is where the site gets the most views. Featuring it on the front exposes more people to the video content on the site. Another issue for those placing their video players on the front page is figuring out where to feature it. WCCO and KARE 11 both feature their players in the right sidebar rail toward the top of the front page, while the Star Tribune, Pioneer Press, KSTP and MN Sun Newspapers (inside a tab) feature players within the center content of the front page. John Daenzer, Web editor at WCCO, said though he was not involved in the decision to place the player in the sidebar, above the fold, he

thinks devalues the lead story at the center of the page:

The screenshot shows the WCCO news website homepage. At the top, there's a weather and traffic section for Minneapolis, showing 54 degrees and light rain. A search bar is on the right. The main navigation menu on the left includes Home, Local News, U.S. & World, Weather, Traffic, Sports, Business, Consumer, Politics, Health, Entertainment, Education, Pets, and Water Cooler. The main content area features a 'Web Extra' section for Tampa Bay Rays at Minnesota Twins, followed by the lead story 'Cold Spring Waits For Word On Swine Flu'. This story includes a photo of a sign that says 'Building Closed Today 4/29/09' and a video player showing a pig eating. To the right of the main story is a 'wcco Video' section with a 'minnesota joblist' sponsor. Below the main story are three smaller headlines: 'Obama: Pleased But Not Satisfied With Progress', 'PRIME SPECIAL DELIVERY', and 'Man Dead, Schools Locked Down After Shooting'.

KARE 11 only recently put its player on the front page of its site to get more video views. Putting the player on the front page draws in more viewers and presents KARE 11's product to advertisers more prominently. However, because video is the primary medium of broadcast sites, moving it from the right sidebar into the left may be more effective in grabbing the website viewers' attention because readers usually start viewing the site from left to right, according to "Eye Tracking Analysis in Reading Online Newspaper" (Zambarbieri, et al). Other research has also found that users' eyes are fixated first on the left upper side of the website and enter the page through the largest image on the site (Paul and Ruel, 2007). The largest image on many TV news sites is the still image from their video player, though the player is still placed in the right sidebar of the page. This is not only unnatural for readers, but counterintuitive in design.

Not all of the news organizations featured their video content prominently. Minnpost, for example, featured its multimedia link in the top navigation bar for a long time. However, this winter, despite being an online-only publication, Minnpost moved

the link to its bottom-page navigation bar, where most websites feature their noncontent-related information or resources. Corey Anderson, Web editor at Minnpost, said as a result of time and budget constraints, Minnpost has not been able to organize and showcase its video on the website. Furthermore, the site does not produce video as frequently as other news sites, and it has decided to prioritize other content for now. Anderson said an intern currently oversees the website’s Minnclips blog, which is an aggregator that features Minnesota-related video from other sources. The Pioneer Press, on the other hand, does not include a link to video or a multimedia page in its navigation at all, despite having its video player featured on the front page. Clonts, Web editor at the Pioneer Press, said his staff never built a centralized multimedia page, and its current “Media Café” page features only videos and slideshows, but does not include many of the other multimedia content the site includes. “It’s on our list of things to do, especially with video,” Clonts said. Right now, Clonts said his staff is focused on developing a strategy in producing its video content and then will build a consolidated multimedia page. “We are falling behind in video,” Clonts said.

Video Presentation:

The following is a breakdown of how video is presented on local news sites:

Presentation:	Number of sites (out of 10)	Specific sites (or exceptions)
Embedded in articles	5	Star Tribune, Pioneer Press, Minnpost.com, KSTP, FOX 9
Right column of story (sidebar)	2	KARE 11 and WCCO
Link/thumbnaill in article to video page	2	Star Tribune, The Minnesota Daily
Independent on its own page	9	All except Minnpost.com
Pop-out player	2	Star Tribune, WCCO

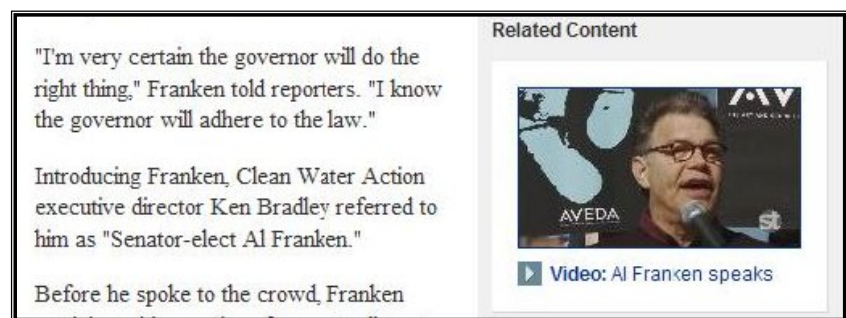
The analysis shows that while some of the sites, such as the Star Tribune, provide various ways to showcase their video, other sites limit the presence and presentation of video. Five sites included video that was embedded within related articles. The Star Tribune seemed to give weight to the quality of the video in deciding where to feature a related video within the story. Some of the stories on the Star Tribune site showcased the video player at the top of the story as the main visual element, while others only provided a thumbnail link to the video in a related content bar – similar to The Minnesota Daily, which consistently only featured a thumbnail link in its story-related bar content. Nine websites included an individual video page that was home to all the videos on the site, with the exception of Minnpost.com, which had a multimedia page without a section for video. The Star Tribune and WCCO also allowed users to view video in a pop-out player, while continuing to navigate the site.

A key factor in deciding where to place the video player has been in whether the placement is effective in drawing the viewers' eyes and gets the video watched. At BBC News, for example, 40 percent of videos embedded into stories would be watched, in comparison to the 2

percent when put in a standalone player (Luft).

Above is an example how the Star Tribune's videos

are embedded inside the sidebar of articles.



Furthermore, embedded or sidebar content that is related to stories often gets viewed by readers – 75 percent of the time, especially when it includes visual material -- when reading an article on the Web, according to an eyetracking study that examined

the way younger readers navigated certain portions of the San Jose Mercury News website (Paul, Ruel). However, this may depend on how related the content appears within the design of the article. A recent eyetracking study that analyzed readers on online newspaper websites showed that the right column of the page, often referred to as the right sidebar, received little fixation from users who were viewing an article page (Zambarbieri, et al, 7). This could be damaging to news sites that include related video with text stories, but include the player in the far right column of the webpage and not within the confines of the story design. This is likely the result of users being used to the right column of a page being used for extra navigation lists (“most popular” box), resources (calendar) and advertisements, instead of being directly tied or related to the immediate content of the article page. Two local broadcast news sites, KARE 11 and WCCO, included a video player that was connected to related text stories, but was presented in the right column or sidebar of the site instead of being embedded within the text or being showcased at the top of the text as the main visual element of the story page.

Embedding videos within text stories can also provide more visibility elsewhere – search engines in particular. Clonts said the Pioneer Press has begun embedding more videos within story pages because they are more likely to get picked up on search engines. Clonts said putting a video within a story page will make it more visible in search engines because of the text on the page. However, Clonts notes that 60-65 percent of Pioneer Press videos are still independent from text stories. For MPR videos have been much more successful when part of a text story package. Other reasons to embed include providing more context for the video or text story and using the video to complement a text piece. Mike Durkin, senior Web producer at FOX 9, said not only is it

beneficial for the design of the site and usability of the user to embed the player with related text stories, but it also keeps video content in context. This is also the reason why Durkin said FOX 9 does not include a player on its front page. Anderson of Minnpost said that judging by the page views, videos seem to work better on the site when used with a story to enhance the readers' understanding of the subject matter. Despite an almost mutual understanding and consensus that the embedding of videos with print stories is advantageous, the local news sites seem to have varying philosophies in hosting video externally.

Hosting externally and third party content:

The following shows the number of local news sites that host internally, externally or a combination of the two:

Hosting:	Number of sites (out of 10)	Specific sites (or exceptions)
Internal	2	Pioneer Press, The Minnesota Daily
External: YouTube, etc.	2	KARE 11, MPR
Internal and external (AP or network videos)	6	Star Tribune, Minnpost.com, WCCO, KSTP, FOX 9, MN Sun

Six of the local news websites include a portion of videos on their sites that are hosted externally or produced by a third party. Out of the six sites that featured external content, all of the site's external content – with the exception of Minnpost – was either from the Associated Press or affiliated network news for TV news sites. Minnpost's external videos were a collection of embedded videos used to accompany the blog posts of its writers from national sources like MSNBC to local news sources like Thisweeklive.com or MNStories. Only two sites, the Pioneer Press and The Minnesota Daily, hosted self-produced videos only.

Two sites hosted all of their videos externally. KARE 11 hosts its videos through a third-party vendor provided by Gannett, which causes slow load time of its video player. Other third-party hosts have included YouTube, which has continued its growth, offering people, businesses, news organizations, and political campaigns an easy-to-use platform to publish their videos. For example, the Barack Obama campaign's 1,800 videos were viewed more than 100 million times on YouTube (Ruffini). MPR hosts almost all of its video through YouTube, while MN Sun Newspapers recently began switching from hosting its videos on YouTube to hosting them internally. However, MN Sun still has a YouTube channel that contains many of its past videos and has a significant following. The MN Sun site used YouTube as a tool for its video content until

the news site had its own video player with similar tools and capabilities.

Local news sites like Minnpost are integrating the use of both a YouTube channel and posting



internally hosted videos to their site. MPR's reason and benefits for hosting videos through YouTube is the idea of meeting readers where they are already at. More people are going to YouTube to search for their videos and as a result videos have a greater audience potential. MPR's YouTube channel is the 65th most viewed nonprofit channel on YouTube (MPRdotOrg). Furthermore, the cost benefit is great because a news organization does not have to use its own server space or expensive bandwidth to host videos. YouTube does eliminate the possibility of profiting from video advertising,

however, and most news sites are still seeking to provide their own video content that is hosted internally, regardless of the expense. The trend of news organizations tapping into the idea of user-generated content themselves is likely to continue as the video market fragments (Castro, see content section p. 13).

Player buttons and features:

Though experimentation in content continues, design elements and features in video players of news sites are beginning to settle. News organizations have made it easier for people to watch news video by standardizing the programming of the player in using Adobe Flash Player 10, which all of the 10 local news organizations used. The standard has become more commonplace for most news organizations as the technology has developed. More sites' player designs seem to be moving toward a rectangular design, according to the following numbers:

Shape of player:	Number of sites (out of 10)	Specific sites (or exceptions)
Rectangular	7	Star Tribune, Pioneer Press, Minnpost.com, Minnesota Daily, WCCO, KARE11, MN Sun
Square size	3	KSTP, FOX9, MPR

The trend is likely the result of sites' looking to the future to make way for high definition, widescreen viewing similar to YouTube, something WCCO's Daenzer said was close to fruition. Furthermore, nine out of 10 news sites included a specific still image on the screen of the player to attract viewers. The Minnesota Daily included its brand logo as the still screen image before video play. The site did use thumbnail images to link to the videos on its front page, however. The brand logo was embedded in the bottom right side image of the video by four news sites to better brand the video product:

Logo of organization:	Number of sites (out of 10)	Specific sites (or exceptions)
-----------------------	-----------------------------	--------------------------------

Embedded in image of video	4	Star Tribune, Pioneer Press, KARE11, MN Sun
Used in video content	5	Minnpost.com, Minnesota Daily, WCCO, FOX9, MPR
No logo	1	KSTP

MN Sun embedded its news organization’s logo into the video player to better brand its video product and make MN Sun’s video product recognizable and familiar to readers. The organization hopes it will make the player look more professional and its content as well. The logo for MN Sun promoted its video content specifically (“MNSUN VIDEO”) and the mnsun.com website. The three other site’s logos promoted its website logo or URL (i.e. StarTribune.com). The standard for displaying the time in the video player was mostly uniform in all news sites. Eight out of 10 featured both a progress timer and a countdown timer while the video played. KARE 11’s player showed only a countdown timer of the remaining time left in the video, while MN Sun’s video player did not include any timers at all. Showing only a countdown timer may result in the readers not being aware of the length of the video and therefore continuing to watch the video further. However, no research or evidence has been conducted to show the results of such a difference and whether a design change in timer display would make a significant impact on length of video viewed.

Below are the results of a design analysis of buttons and features included in the video players of the 10 local news organizations:

Buttons and features included:	Number of sites (out of 10)	Specific sites (or exceptions)
Sharing (e-mail or share links)	10	All
Play/Pause	10	All
Full Screen	8	MN Sun, MPR
Volume	9	All except KARE 11
Mute button	9	All except MPR.

Embed	5	KSTP, KARE 11, FOX 9, MN Sun, Pioneer Press
Playlist	8	Star Tribune, Pioneer Press, WCCO, KSTP, KARE 11, FOX 9, MN Sun, MPR
Replay	1	MN SUN
Timer	9	All except MN Sun
Rating	1	KARE 11
Link/HTML	5	Pioneer Press, WCCO, KSTP, KARE 11, MN Sun

Of the options offered by the 10 different players, KARE 11's and WCCO's were likely the most extensive. KARE 11, for example, offered a rating system for its videos and also allowed viewers to select multiple videos to add to a personalized playlist. WCCO's Daenzer said the strategy behind the design of its player is easy usability by readers, which is why the player has a "pop-out" option that gives readers the ability to let the video load in an independent window as they browse the site. Sites such as Minnpost, in contrast, had only standard buttons and features. "It's a pretty basic player with not too many bells and whistles," Anderson from Minnpost said. However, excluding certain features such as sharing could result in a missed opportunity for more views.

All of the local sites had some sort of sharing capability. News sites can see great benefit from sharing tools. According to a 2007 Pew Internet & American Life study, 57 percent of online users aged 18 to 29 share video links ("The State of The News Media"). In some sites sharing ability was manifest through an e-mail link that allows the reader to share the story by e-mailing it to a friend, while other sites provided a way for readers to share the video story through aggregator sites such as Digg.com or social networking sites Twitter and Facebook. However, the sharing tool that allows readers to embed the video to their own site or blog, and a tool that perhaps contributes to more video plays, was used by only five sites. In FOX 9's recent re-design of its site, the biggest feature that was implemented within the new video player was the sharing component through

embedding and e-mailing capabilities, Mike Durkin from FOX 9 said. Durkin said if a reader embeds one of FOX 9's videos, it still pulls the video from its servers and the site gets credit for every time a video gets played. Furthermore, Durkin said that FOX 9 does not have to worry about having video content stolen, edited or changed. Other news sites, such as WCCO, are not able to embed videos because of a CBS Network policy.

Instead, WCCO and CBS take a different approach to sharing video by controlling where it goes and who else uses it, John Daenzer, Web editor at WCCO said. Currently, WCCO has an agreement with Yahoo News to syndicate its video content. Most of the sites did have a playlist that accompanied the video player and pointed



readers to other videos, which usually contributes to more video plays too. The key to improving the playlist is giving them options within the player itself after they finish watching the video, similar to how the YouTube player functions. The Star Tribune is currently working toward implementing such an option.

Looking forward at expanding player features will likely be a focus on other digital tools such as video on mobile. Most of the local online editors think that mobile will be the next great arena for local television and digital media. With so many people getting smart phones, providing a platform for readers to view videos on the go will be essential, especially when live video on the Web becomes more standard. In 2008, there was already some experimentation with this technology as two local Chicago television stations tested successfully a live stream of their programs to mobile devices (Goetzl). Mobile video could be incorporated with user-generated videos that are shot from

events and uploaded to the news site to share with the community. The technology does still need some work, and mobile direct television-compatible handhelds and add-on chips to make the viewing possible could hit the market later this year (Dickson).

Usability: Working out the kinks

The following is an excerpt from a definition of Web usability by Dana Eagles, the staff development editor at the Orlando Sentinel:

“Usability refers to how easily and intuitively a user can interact with a Web site. Highly usable sites allow users to quickly and easily accomplish tasks -- find a story about a particular sports team, send a letter to the editor or post a comment, for example. The design, navigation and organization of content on a site are instrumental in making it user-friendly.” (Eagles, poynter.org).

Currently, there are few standards and a lack of research on online video usability, said Grant Crowell, senior analyst at ReelSEO.com. Crowell, being a usability professional for some years and having conducted usability reports and user testing for clients, said he was interested in finding some research on the topic and contacted many well-known usability organizations to find nothing. So what is video usability? Crowell describes video usability as the “users’ experience with meeting their Web-based objectives with video, and matching the intended goals of the video owner” and said it is no less important to other aspects of Web usability (Crowell). The following comments, observations and analysis are conducted with these definitions in mind as well as a user intuition of how easily the site can be used.

Navigation:

Each of the 10 local news sites had usability issues observed during content and design analysis. The Star Tribune’s front page player tabs that allow readers to switch between Star Tribune and Associated Press video content were poorly identified in design as tabs and appeared more like external links. KSTP's navigation and external content identification was confusing as well. For example, a tab labeled "As Seen On 5" seems to imply a category for videos or stories seen on the news station itself, but is instead a cluster of links to different websites with more information on topics, some of them internal. Moreover, the Associated Press videos on the KSTP site are not identified well as being external content. Minnpost’s center section on the multimedia page shows videos that are “featured,” instead of sorting videos by most recent, which is the most usable and familiar way to categorize videos for viewers. The right sidebar featured on Minnpost’s section page does include recently posted items, but this section would make most sense if featured prominently as the center section.

Most of the local news sites offered multiple ways to reach their video content. The following is a breakdown of how the sites allowed readers to reach their video content:

Linking to video:	Number of sites	Specific sites (some overlap)
Links from front page (view videos link)	2	Pioneer Press, MPR
Links from front page and navigation bar	6	Star Tribune, Minnpost.com, Minnesota Daily, WCCO, KARE 11, MN Sun
Links from individual front-page stories	7	Star Tribune, Pioneer Press, KSTP, WCCO, KARE11, FOX9, MN Sun

Six sites linked to videos from the front page through a “view more videos” link that accompanied the video player or through a “videos” link within the navigation bar. All four broadcast news sites linked to videos through individual stories as well, and three newspaper sites included links to story pages that included only the video for content.

Most of this was done through a link at the bottom of a story that allowed the reader to link straight to the accompanying video, while sites such as the Pioneer Press also posted video stories with a blurb for text individually on the front. Pioneer Press Web Editor Clonts said they use this method when they want to really feature a video story, and sometimes the best way to attract users is by making it appear as a regular text story.

Other sites had navigation issues from redundant linking and navigation. The KARE 11 site suffered from redundant linking to videos in various ways. Some of the stories on the front page included icon links to play the video, but they linked to the story itself and did not play the video automatically. Essentially, this linking was not any different from the headline link of the story. A blurb link like this promises a specific action. This redundancy requires clicking-through multiple times, which could become frustrating for viewers. However, including an identifying video icon was still helpful in telling readers that a video accompanies the story, something that the FOX 9 website did not include on its front page, making it impossible to know which stories are accompanied by video. The KARE 11 site also had redundancy in navigation with a double navigation bar that existed only on the front page and included a link to videos:



Some of the links in the bottom bar were found as subsections in the top navigation bar. Furthermore, the bottom navigation bar was only available on the front page, which could get confusing for readers as they navigate the site and expect to find videos in the second navigation bar. The Pioneer Press website made it difficult to find video with the absence of a multimedia link in the navigation bar, much like Minnpost, which featured a link in the bottom navigation bar where most news sites include secondary resources and noncontent-related links. A similarly difficult navigation, MPR featured a link to videos under its resources sidebar. This sidebar, however, only appears on the front page of the site. MPR also uses several platforms (gather.com, YouTube and an internal player) to showcase its videos, which makes it difficult to find the video content on the site because it is featured in several areas, instead of one consolidated location.

Categorization:

Most of the local sites' default categorization was sorted by most recent videos, and also offered categorization of content-type sections such as news, sports, etc. The following is a breakdown showing how the 10 local news sites categorized videos:

Categorization of videos:	Number of sites	Specific sites (or the exceptions)
Sorted by most recent	9	All except MPR
Sorted by producer: original, user, AP	1	Star Tribune
Sorted by content-type/sections	7	Star Tribune, Pioneer Press, MPR, WCCO, KSTP, KARE11, FOX9

Sorting by content-type could allow easier navigation for viewers looking for videos on specific subjects. The Star Tribune also allowed readers to view video by the content producer such as external content through the Associated Press or user-generated videos. Despite having a content-type categorization, MPR's video section page lacked specificity in some of its categories. For example, the default categorization was set on

“browse videos,” which appears to show videos randomly and includes various content types. Sites that only categorized by most recent videos could benefit from sorting their videos into content-specific sections, especially for a site such as MN Sun, which produces some 60 videos weekly. Despite the volume of videos, MN Sun only sorts by most recent videos, clustering sports, news and features all under one roof.

Playing usability:

Seven out of the 10 local news sites did not have videos play automatically, requiring the user to press play before and after a video finished playing action. The Star Tribune, WCCO and MPR’s videos played automatically after an initial video was played, which required the user to press play. The next video on the playlist would then play automatically.

Playing usability:	Number of sites	Specific sites (or the exceptions)
Plays automatically	3	Star Tribune, WCCO, MPR
Does not play automatically	7	Pioneer Press, Minnpost.com, Minnesota Daily, KSTP, KARE11, FOX9, MN Sun
Button is on player only	3	Minnesota Daily, FOX9, MPR
Button is on screen and on player	7	Star Tribune, Pioneer Press, Minnpost.com, KSTP, KARE11, WCCO, MN Sun

The reason that most sites require user action is simple, said Mike Durkin senior Web producer from FOX 9. For example, the video playlist on FOX 9’s site may have intuitively felt more natural if the next video would automatically play after the user’s current video finished playing. Durkin said because many of its viewers watch video from their work, FOX 9 did not want to make it automated to blast unexpected sound if the user’s speakers were on. Instead, they designed it so that the user can carefully use the player, and the usability is based on the concept of user initiation. However, clicking to have a video play did not necessarily make it play. A user first has to select the story

and then click play manually. This type of double-initiation from the user may be requiring too much initiation from the user. Other sites had different issues with playing usability. The load time of the video player prevented quick play on KARE 11's website. On the front page and on story pages, the video player took more than five seconds to show in the sidebar because of a slow load time. The slow load time sometimes made it hard to know where the video was going to appear on the page. The load time is slow because of several platforms pulling information from one another and also based on the number of videos that are featured in the player. The staff aims to keep the number of videos at no more than 20, so that the loading time of the player is reasonable for users.

Design:

Some of the local news sites' design made it difficult to use and navigate the videos. Sites such as The Minnesota Daily had issues in design that made it difficult to distinguish which thumbnail (an image that links to a page) accompanied a specific video piece within the video section page. For example, a thumbnail of a press conference appeared to accompany a video on an art exhibit. The design of WCCO's player made it difficult to distinguish video advertisements from content. The video advertisements could be labeled more prominently than the currently small text below the play button that identifies it as such. KARE 11's advertisement, which played prior to the video, also had similar identification issues. As shown to the right, if you look closely, KSTP also had issues with its player design that resulted from small identifying text for its video headlines, making them virtually unreadable. The issue was consistent in the player's thumbnail teasers for other videos, which also displayed unreadable headlines. FOX 9's troubles in video were the result of its tab-based design, which allows

the site to fit more content into a small space and gives some control to the user in what they see. However, the tab design created redundancy in content when same stories would appear under multiple tabs.



MN Sun's player design could cause some frustration for short-attention span Web surfers because it does not include a timer. As a result, the readers cannot know how long they are committing themselves to watch the video.

Content:

Many of the local broadcast video usability issues were apparent in the content that is reformatted from television to go on the Web. For example, a KSTP video that was displayed live for television still contained a "live" logo within the video image on the Web. This makes it difficult to distinguish live Web video and video that was live for television. Also, for the FOX 9 live video section, the site does not let the user know when the live feed is not available. Instead, the player continues to read that it is loading. This should be distinguished as not available when no feed is coming through.

Searching:

According to research by Nate Elliott with Forrester Research, videos that are indexed are now 53 times more likely to appear on the first page of search results of Google (Gannes; Robertson).



This has taken video a step up from news companies only uploading their videos to YouTube to get exposure and visibility on search engines. Sites have begun using other tools to increase video visibility as well, such as social networking tools. Daenzer said his site uses tools such as Facebook and Twitter to draw user interest in videos through a social networking platform. WCCO's Twitter account has more than 4,000 followers. In fact, all of the 10 local news sites examined have Twitter accounts that point readers to the sites' content. Furthermore, news video exposure has expanded with embeddable players and syndication. Durkin said that more than 20 percent of FOX 9's video views come as a result of users sharing through embedding videos, linking to the stories, e-mailing them to friends or tweeting the story. The site also has partnerships through the Minnesota Monthly and the Minneapolis-St. Paul Business Journal websites, which feature some of FOX 9's videos and contribute views as well.

However, when visiting local news sites and attempting to search specifically for videos, one might have a more difficult time searching for video specifically. Only WCCO and KARE 11 out of the 10 sites examined included searches that were specific to videos. Nine of the sites did include video results in their general searches. The following is the breakdown of sites and their search engine capability:

Searching capability:	Number of sites	Specific sites (or the exceptions)
Includes specific video search	2	WCCO, KARE11
Includes general content search	8	Star Tribune, Pioneer Press, Minnpost.com, Minnesota Daily, KSTP, FOX9, MPR, MN Sun
General Search includes videos	9	All but MPR, which only includes videos embedded in stories.

MPR is the only site that did not include its internally hosted videos in the search engine results. Whether videos show up in search engines depends very much on the taxonomy that is used with videos on the site. WCCO's John Daenzer said Meta tags help increase

visibility of WCCO’s video content because it gives the stories another layer of categorization and a form of a keyword for search engines to pick up. Search engines are now starting to catalogue video, which is sure to bring many more views to video because much site traffic comes from search engines. It has potential to start to change as video becomes more indexed-able.

Advertising: Finding new revenue streams

In 2008, the news industry made little progress in monetizing the Web to pay for the expensive costs of newsgathering through display advertising, revenue share through Google searches (“The State of The News Media”). Ad revenues totaled \$23.4 billion, up 10.6 percent from revenues in 2007 (“IAB Internet Advertising Revenue Report”). However, video advertising grew rapidly early in 2008, but slowed substantially in a weakened economy, according to the IAB numbers.

Advertising functionality:

Despite the increase in advertising dollars being spent for online video, the local news sites are still looking for ways to attract advertisers and implement a technology platform that allows them to display the ads. The following chart shows how many of the sites include video advertisements as well as the way the advertisement plays or functions within the player:

Use of advertisements in videos:	Number of sites	Specific sites (or exceptions)
No advertisements	5	Pioneer Press, Minnpost.com, Minnesota Daily, KSTP, MN Sun
Advertisement before video plays	5	Star Tribune, WCCO, FOX 9, KARE 11, MPR
Can skip	0	None
Cannot skip	5	Star Tribune, WCCO, KARE11, MPR
Advertisement after video plays.	0	None

Half of the local sites included pre-roll advertisements, while the rest did not incorporate advertisements in videos at all. Nationally, specifically with newspaper Web video, pre-roll, a video ad that plays before the news video starts, is the most common format of video advertising. According to a 2008 national Newspaper Association of America survey, out of 195 newspapers that responded on their advertising formats, 49 percent of newspapers used pre-roll advertising in videos (Lawton). However, 77.8 percent of newspapers with a circulation of 250,000 or more used pre-roll ads. WCCO Director of New Media John Daenzer said pre-roll ads are more popular because they are the most effective. Post-roll ads are not attractive to clients because viewers rarely stick around to watch them. With pre-rolls, on the other hand, viewers already have an interest in watching the video and are more willing to sit through a short advertisement. FOX 9 uses pre-roll advertising. Each video plays a pre-roll advertisement before a viewer gets to watch the video. The advertisements do not play more than three times for a specific video, something senior Web Producer Mike Durkin said is already too high, and he has been battling to get the number of pre-rolls down. He worries that having too many pre-rolls will detract users from watching the videos. The Star Tribune had a similar frequency format as FOX 9. It showed one advertisement per every three videos viewed, but now shows a pre-roll based on the length of video or time spent watching multiple videos. Every eight minutes of viewing prompts an advertisement, which leads to more pre-roll impressions. The Star Tribune also is working on implementing mid-roll advertisements. With mid-roll ads, the site would be programmed to allow users to skip the advertisement. In regard to functionality, none of the sites allowed the user to skip through the advertisement being played. The sites that did not include advertising cited a lack of technological implementation in their site

platforms as well a difficulty of selling such advertising to businesses that do not have the resources to produce video advertisements.

Because the attention span of online video viewers is lower than that of television, advertisements longer than 15 seconds are likely to lose a viewer, Daenzer said. As a result, none of the local news sites included advertisement pre-rolls that were longer than 15 seconds. The following is a breakdown of the varying advertisement lengths used by local news sites:

Length of video ad:	Number of sites	Specific sites (or exceptions)
1 to 5 seconds	0	None
5-10 seconds	2	Star Tribune, FOX 9
15 seconds	5	Star Tribune, WCCO, KARE11, MPR, FOX 9

If a video were to be longer than 15 seconds, Daenzer said he thinks pre-rolls would have to be programmed to be turned off for the remaining duration of the user's viewing.

"You could incent viewers to watch one big ad if they are able to skip all pre-rolls," he said. Most agreed that 15 seconds seems to be the limit in online video advertising, but also said it depends on the length of the video being watched.

Newspaper sites:

Newspapers are still focusing their efforts in the print newspaper, which only slows the transition to online advertising further. Marc Andreessen, the co-founder of Netscape Communications, said in a conversation with Charlie Rose on PBS, "If 90 percent of a publisher's revenue comes from the newspaper, then 90 percent of their time is being devoted to the print product" (Lail). If newspapers hope to transition into online news organizations, the pendulum in revenue efforts needs to swing. How does that happen? Andreessen said newspapers should kill their print products now in order

to survive. Regardless, it is clear that a dramatic shift in resources is needed because projections are not good. Veronis Suhler Stevenson estimates newspaper advertising revenues online and in print will decline 19.1 percent in 2009 (Veronis). It's clear online revenues are not making up for the steep losses in print and newspapers are going to have to continue to look for opportunities to capitalize on their services through multiple forms of revenue ("The State of The News Media").

Nonetheless, newspaper sites have done fairly well at monetizing Web video nationally, capturing a 26 percent share in online local advertising in 2007 (Lawton). Part of this may be the result of newspaper sites opening up their Web space for smaller and mid-size businesses to advertise, something that broadcast stations are not used to ("The State of The News Media"). Nationally, newspaper sites made \$165 million in online video advertising in 2008, in comparison to television stations that made \$105 million, a gap of more than 50 percent (O'Malley). Broadcast television stations have normally attracted mainstream clients for advertising, but have had a difficult time bringing them to the Web. However, the advertising dollars need to be able to justify the amount of video content being produced. Pioneer Press Senior Web Editor Chris Clonts said video advertising has been difficult to sell because the clients' expectations far exceed the return in video views. "When we have text stories that get four times as many views, why wouldn't they place an ad there instead?" Clonts said. Online-only Minnpost, which was founded by former Star Tribune Editor Joel Kramer, does not currently incorporate video advertisements, said Corey Anderson, Web editor at Minnpost. However, Anderson said there has been some "discussion" of video ads.

Broadcast sites:

After 31 percent of local television websites made profit in 2007, advertising projections looked promising for 2008 (RTNDA/Hofstra University Survey). Instead the growth slowed and revenue figures barely passed 2007's numbers. Borrell Associates projected a 47 percent increase in a report in March 2008 for online advertising of television stations – from \$772 million in 2007 to \$1.1 billion in 2008 – but readjusted its numbers in November to a reduced growth of 8 percent (“2009 Outlook: Big Slowdown Begins for Interactive Advertising”). Online-marketing-research firm eMarketer also estimated a big increase in online video advertising spending and projected spending for 2008 at \$505 million (Hampp). The firm went on to reduce its projections similar to the way Borrell did. Online advertising figures still only make about 2 percent of a station's revenue (“Benchmarking: Local TV Web Sites Gaining Ad Share”). Nationally, larger-market stations such as the four local television stations (KSTP, KARE 11, FOX 9, WCCO) averaged about \$750,000 in revenue from their websites in 2007 (“Benchmarking: Local TV Web Sites Gaining Ad Share”). However, the number is probably much lower for the local stations because they share the local market, and the majority of the revenue is from display advertising, not video.

Local stations are still largely experimenting with video advertising. KARE 11 just recently integrated pre-roll advertisements within videos. Because KARE 11 is owned by Gannett, the player plays local and national advertisements. But that does not mean that the station loses out on local advertisers who believe their ad is not reaching the target audience. The video players can call certain advertisements based on sections that are sponsored. This allows the advertisements to be targeted, similar to how display advertisements are on sites. If a client, for example, wants to sell to an audience that appreciates sports, they are able to display their ad on sports pages only. MPR, which

makes most of its revenue through donations from its “sustaining members,” uses YouTube to host most of its video. From a business perspective, YouTube is challenging because it is difficult to monetize video without advertisements. However, Google provides a way for users to donate to MPR through its YouTube channel.

Looking forward:

The future holds good news and bad news. Despite the money on the Web being small, more television stations are hiring staff to sell online ads exclusively (“Benchmarking: Local TV Web Sites Gaining Ad Share”). Furthermore, some projections for online video advertising are bullish. The online-marketing-research firm eMarketer predicts that video will be the highest growth sector in online advertising for 2010, bringing in \$1.15 billion in revenues – more than double its revenue in 2009 (Hampp). In fact, the firm report shows video being the highest growing sector through 2012, totaling a 400 percent growth from 2008-2012. However, video ads are still only a small piece of advertising. It totals only 5 percent of website revenues for newspapers and 10 percent for television websites. (“The State of The News Media”).

Seeing growth in sight, the local sites are still optimistic about capturing some ad dollars through the medium. The new medium may allow the companies to capture new clients, and grabbing ad revenue in a completely new market of advertising. Other editors had bigger thoughts for ads coming through live video streams. For example, when a station streams its 4 o’clock show live, the television format will have its own set of ads, while the online version will have another set. FOX 9 is looking toward syndication and its mobile applications to increase video advertising, Durkin said.

Syndication or partnerships with Yahoo will make it easier for advertisers to place into mass markets, something local stations like FOX 9 hope to capture (Helft). The consensus in the industry is that online advertising will likely rally after the recession, (“The State of The News Media”).

Despite the expected growth in video advertising, many newspapers and television stations are lacking the resources to mount an assault in capturing the growth. According to Gordon Borrell, CEO of Borrell Associates, news companies need to create a separate staff with divergent ideas that will sell online advertising. The local news organizations would likely benefit from having an in-house staff that is capable of and focused on producing video advertisements for businesses that lack resources or skills to create their own. The trend has been thus for newspapers for years in creating newspaper ads for print, but the shift to online advertising production, especially with video, has stalled as companies face economic pressures and a resulting lack of resources to bolster their efforts.

Conclusion

Though local news sites have expanded their production of content and made great strides in technological advances on their video platforms, they have not reached 2.0. Many of the local news sites are still experimenting and beginning to define the type of video content they would like to produce. There are things that seem to be working in content, however:

- Evidence points to most news sites using video to cover feature stories. That is mostly because these types of stories have visual elements that lend themselves well to video footage.
- Breaking news comes in second place for most produced video and works well. Even if it is raw, most editors agree that breaking news footage can really complement a story and drive a lot of traffic. Video images of the floods were among the most popular for the Star Tribune. However, expanding breaking news video coverage will become less challenging, as more reporters become trained in shooting video.
- Local video coverage may be the golden rule. Most of the editors noted that local coverage received a more significant amount of traffic for its local videos. It is what viewers want and expect.

Despite some realized fundamentals for content, there is also video content that news organizations could do without:

- Because local news videos are in higher demand, national videos are not. At least not for these local news sites, or not to the extent that the investment is worth the gain. Local news organizations that currently pay for Associated Press content may want to invest that money into funding more local coverage.
- News organizations should use talking-head video sparingly, if at all. Because users on the Web are easily distracted, this type of video content does not work well; furthermore, keeping videos short on the Web is key.
- In general, news organizations that are new to video, such as the Pioneer Press, will need to extensively train their videographers in shooting quality video.

Beyond the quality, news organizations need to better adapt their video content to Web users who expect shorter and more engaging content.

That said, there are things that are still in the experimental stages and could either be a waste of resources or a benefit to readers and Web traffic:

- User-generated content could build a strong sense of community on a website. Most of the editors expressed interest in expanding or implementing user-generated content. However, the question is whether users will continue to use platforms such as YouTube, rather than going to a news site. Regardless of how successful the user-generated content becomes, it is a low-cost way for a news organization to increase content and traffic with almost no cost in staffing. However, the news organizations would have to pay for server space and bandwidth.
- Live video is expected to be the next big step in online news video. KARE 11 and FOX 9 have done a good job in using live video, but expanding it will be the key in driving traffic through video viewership. Online users expect immediacy, something that online live video will provide. Furthermore, live video will increase online competition. For example, newspaper websites may now be able to compete with TV stations in covering live events through a Web stream. Also, live video could be the spark that makes “talking-head” video more interesting and relevant. Live video would bring the Star Tribune’s “News Break” to life by providing immediacy and an element of surprise to the show.

In addition to content, local news sites have a long way to go in reaching usability standards for video players, including location, presentation, buttons, hosting and more.

These are some important improvements that could be made:

- The majority of the sites featured video content on the front page of the site. TV news sites especially did a great job in featuring its video players prominently on the front page. However, only two sites featured the video player above the fold of the site. If news organizations are serious about exposing readers to its video content, the location of the player is very important. Furthermore, news organizations that place its player in the right sidebar should consider a re-design, since research shows readers viewing the first dominant image on the left side of the site first.
- Only half of the sites connected readers between print and video stories that were related. Evidence shows that readers are much more likely to watch videos that are related to a print story. The Star Tribune did a good job of connecting readers to its video content through multiple levels, something that other sites might take note on. Star Tribune's site showcased video individually, embedded, on the front page and video page. This gives the viewer more possibilities to be exposed to the content.
- Navigation also plays a key role in exposing viewers to video and makes it easy for them to find video content. Sites such as the Pioneer Press and MPR did not include links to video content in its navigation bar, a poor example of providing useful navigation for viewers. This not only makes it more difficult for users to find video content, but likely contributes to fewer video plays.
- The local news sites are still working to develop the technological platform that provides users with tools to better use and share the content. Some of the sites are still lacking fundamental buttons that should be included with all players. For example, KARE 11 does not include a volume button on its player. Only five of the

ten sites included an embeddable player or link/HTML buttons. These options could increase the exposure of the videos by being embedded within external blogs and being linked from other websites.

There are still things that need to be considered by news organizations in regards to design and usability:

- Because there is still very little research on the topic, news sites will have to conduct their own testing to determine which button options are truly helpful to readers. While players like that of Minnpost are simple in design, making it easy for a viewer to use, the readers also lose out on options to control the player's functions and how they view video. However, a player that has complex options like that of KARE 11 may be overwhelming for the viewer, despite providing many options to control the functions of the player. The news sites should look at the frequency use in each specific button and determine whether users truly find it helpful.
- Where to host content is a question that is yet to be answered. While sites like MPR are posting their video content onto YouTube, other news organizations such as MN Sun are implementing their own video players and moving away from hosting content externally. Though posting videos onto YouTube may provide more exposure on that site, hosting content externally poses navigation issues from the internal site. For example, users navigating MPR's website are not effectively directed to MPR's YouTube channel. Furthermore, it requires readers to go elsewhere to view your content.
- Mobile video, similar to live video, is said to be the next big innovation in Web video. Providing readers with more ways to consume the content has become

more important. As smart phones become more affordable, more readers will likely begin viewing content through handheld devices, and news organizations need to be prepared to meet that demand.

- Categorization allows users to better interact and navigate through video content available. Most of the sites categorized content in the video section page, but editors may also consider placing content-specific videos within coverage sections (business, sports, etc.). For example, the business section would only include business-related videos. The concept is an expanded version of the principle of embedding related content. It is more likely to get played.

It is clear that the economy had damaged efforts to expand and improve online video.

Many local news sites have had to cut staff, and they are working to produce content in survival mode. However, video advertising is expected to have the largest growth out of any sectors in online advertising. The opportunities are tremendous. It appears that the only thing learned by the local news sites is that post-roll advertisements do not work.

Furthermore, half of the local news sites have yet to implement or even sell a video advertisement. The following are possible ways that local news sites may be able to take advantage of the expected growth and begin to monetize video content:

- Internal hosting provides more opportunity to monetize videos. News sites with a significant interest in monetizing video content should move away from hosting content on sites like YouTube, which provide little opportunity for revenue that is limited for nonprofits.
- Pre-roll advertising has proven the most effective thus far. The Star Tribune uses an effective system based on length of content, rather than a number of videos,

before showing a pre-roll ad. This seems to be the best balance in incorporating advertising within videos without ruining the reader's experience.

- Incorporating a banner ad that complements the video ad provides more exposure on the page and is usually more attractive to advertisers.
- Search advertising is expected to grow as well, and news sites could take advantage of the revenue that Google search has been making money off of for years. If local news sites incorporate specific video searches, they could sell sponsored links to appear at the top.
- As the economy recovers, local news sites should seek to hire specialized video advertising producers and online sales staff to tap into the online market.

More importantly, in all aspects, to expand and improve video, the local news sites will have to focus more efforts and resources online to decrease the gap difference in online versus print or on-air advertising. The need for quality, innovative approaches to online news video are greater than ever, as we await its growth into 2.0.

Works Cited

“2009 Outlook: Big Slowdown Begins for Interactive Advertising.” Borrell Associates.

November 2008.

<http://www.borrellassociates.com/special_report.aspx?prodID=136>

Anderson, Corey. E-mail interview. April 8, 2009.

“Benchmarking: Local TV Web Sites Gaining Ad Share.” Borrell Associates. March 2008.

<http://www.researchandmarkets.com/reportinfo.asp?report_id=313106>

Bryant, Steve. “What works in online video news?” Knight Digital Media Center. May

22, 2006. <<http://www.ojr.org/ojr/stories/060522bryant/>>

Castro, Alex. “Peering into 2009: 10 Predictions for Online Video.” Mashable: The Social

Media Guide. <<http://mashable.com/2008/12/30/video-predictions-2009/>>

Clonts, Chris. Interview. March, 24, 2009.

Crowell, Grant. “Usability Standards for Web Video. Where the hell are they?” ReelSEO.

January 6, 2009. <<http://www.reelseo.com/usability-web-video/> Usability

Standards for Web Video (Where the hell are they??) >

Daenzer, John. Interview. March 17, 2009.

Dickson, Glen. "ATSC Eyes Digital TV's Future." *Broadcasting & Cable*. December 8, 2008. <http://www.broadcastingcable.com/article/160355-ATSC_Eyes_Digital_TV_s_Future.php>

Durkin, Mike. Interview. March 20, 2009.

Eagles, Dana. "Usability." *PoynterOnline*. March 26, 2008.
<<http://poynter.org/column.asp?id=119&aid=139790>>

Editorial Board. "How Not To Do Newspaper Video." *The Digital Journalist*. May 2008.
<<http://www.digitaljournalist.org/issue0805/how-not-to-do-newspaper-video.html>>

Erdahl, Jason. Interview. March 17, 2009.

Festa, Paul. "Video content set free on Web." *CNET News*. June 14, 2005.
<http://news.cnet.com/Video-content-set-free-on-Web/2100-1025_3-5746034.html>

Ganes, Liz. "The Great Video SEO Frontier." *Business Week*. February 2009.
<http://www.businessweek.com/technology/content/feb2009/tc20090212_136831.htm>

Goetzl, David. "Mobile TV Gains Momentum." *Mediapost Publications*. November 11, 2008.
<http://www.mediapost.com/publications/?fa=Articles.showArticleHomePage&art_aid=94489>

Hampp, Andrew. "Online video streaming." *Advertising Age*. August 25, 2008. Vol. 79, Issue 32, p. 21.

Hardesty, Linda. *Communications Technology*. February 2009. Vol. 26, Issue 2, p. 11.

- Heaton, Terry. "Borrell: TV stations still losing, in of all place, video!" Audience, Research & Development. March 25, 2009. <<http://www.ar-d.com/>>
- Huff, Greg. Interview. March 25, 2009.
- "IAB Internet Advertising Revenue Report." Interactive Advertising Bureau. PricewaterhouseCoopers. March 2009.
- Kraker, Jeff. Interview. March 27, 2009.
- Lail, Jack D. "Marc Andreessen: 'The game is completely over.'" February 22, 2009. <www.jacklail.com>
- Lawton, Beth. "Newspapers' Online Video: An NAA report on current practices." Digital Media Federation. Newspaper Association of America. May 2008. <<http://www.naa.org/docs/Digital-Media/OnlineVideo/2008-Online-Video-Survey.pdf>>
- Lipsman, Andrew. "U.S. Internet Users Viewed 10 billion Videos Online in Record-Breaking Month of December." comScore Video Metrix. <<http://www.comscore.com>>
- Luft, Oliver. "The BBC should do less online video, says interactivity head." May 7, 2007. <<http://www.journalism.co.uk/2/articles/53407.php>>
- McLellan, Michele. "The Miami Herald: Moving furniture, people and attitudes." Knight Media Digital Center. April 22, 2008. Accessed: March 18, 2009. <knightdigitalmediacenter.org>
- Minneapolis Public Radio YouTube Channel. YouTube. March, 22, 2009. <<http://www.youtube.com/user/MPRdotOrg>>
- Minnesota Public Radio Support. <<http://minnesota.publicradio.org/support/>>

Nielsen, Jakob. "Talking-Head Video is Boring Online." Jakob Nielsen's Alertbox.

December 5, 2005. <<http://www.useit.com/alertbox/video.html>>

Paul, Nora; Ruel, Laura. "Early lessons from Poynter's Eyetrack07." Knight Digital

Media Center. April 14, 2007.

<<http://www.ojr.org/ojr/stories/070414paul/index.cfm>>

Paul, Nora; Ruel, Laura. "Eyetracking research shows how younger readers view news websites." Knight Digital Media Center. December 10, 2008.

<<http://www.ojr.org/ojr/people/paulruel/200812/1593/>>

Perras, Rene. "Online Video Trends Toward Professional Production." Justice News Flash. March 4, 2009. <http://www.justicenewsflash.com/2009/03/04/online-video-trends-professional-production-legal-marketing-report-rene-perras_20090304857.html>

Reszler, Mike. Interview. April 3, 2009.

Ruffini, Patrick. "The Internet Is TV. Twitter Is the Internet." December 18, 2008.

<techpresident.com>

"Text, Pictures and Audio on Local TV Websites." RTNDA/Hofstra University Survey. 2008. The State of The News Media.

<http://www.stateofthedia.org/2009/narrative_locltv_digitaltrends.php?media=8&cat=5#3>

Shields, Mike. "CNN launches website for citizen journalists" Reuters. February 11, 2008.

<http://www.reuters.com/article/technologyNews/idUSN1117056620080212>

Shields, Mike. "NBC's Victory Lap." Media Week. August 25, 2008.

<<http://www.mediaweek.com/mw/index.jsp>>

Siegel, D.J. "In Focus: Minneapolis Star Tribune." Newspaper Association of America.

October 17, 2008. <<http://www.naa.org/Resources/Articles/Digital-Media-Online-Video-Snapshots-Star-Tribune-Case-Study/Digital-Media-Online-Video-Snapshots-Star-Tribune-Case-Study.aspx>>

Stelter, Brian. "Web Audience for Games Soars for NBC and Yahoo." August 24, 2008.

The New York Times.

<<http://www.nytimes.com/2008/08/25/sports/olympics/25online.html>>

"The State of The News Media." An Annual Report on American Journalism. 2009. Pew Project for Excellence in Journalism.

<<http://www.stateofthedia.org/2009/index.htm>>

Veronis Suhler Stevenson. "Communications Industry Forecast 2008-2012." <

http://www.vss.com/industry_research/publications/communications_industry_forecast/index.asp?forecast08>

Vorhaus, Mike. "Traditional Television Remains '800 Pound Gorilla' in Video Media Arena." Council for Research Excellence. March 26, 2009.

<http://www.researchexcellence.com/news/032609_vcm.php>

Zambarbieri, D., Carniglia, E and Robino, C. "Eye Tracking Analysis in Reading Online Newspapers." Journal of Eye Movement Research. 2008. 2(4): 7, p. 1-8.

<<http://e-tracking.unipv.it/publication/JEMR%202008.pdf>>