

KILLING FLIES WITH A SHOTGUN: HOW THE INTERNET SET A NEW
JOURNALISTIC STANDARD AND STYLE

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Today, both the way a story is told and how long the viewer's attention can be held are often as important as the story itself. This study shows how online media sets new standards for narrative and continues some print traditions. This study focuses on the dialogue between print and online media. A quantitative and qualitative analysis of this dialogue through story length, readability, shovelware and story packaging shows the numerous effects the Internet has had on news media content.

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This thesis is dedicated to my fiancé, Brian, and my family. Their support and patience over the last year has been overwhelming.

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INTRODUCTION

The world moves at a dizzying pace. In his book, *Faster*, James Gleick (1999) bemoans the loss of the sheer pleasure that is reading the morning paper while eating a bowl of cereal. No greater societal element has embraced the acceleration of change than the media. With the advent of the Internet and the computer age, society has seen a shift in news media content and narrative structure. People have several options in getting their news, and more and more are booting up their computers for news. Recent numbers suggest that 4,925 newspapers are publishing on the Internet. Eighty percent more than experts expected (Meyer, 2000). For journalists this change can be scary. Will they be replaced by computers? Will they be able to keep up in a multimedia newsroom? Journalists will no longer simply gather facts and put together a strong piece of narrative. They will have to write more in-depth stories and stories for a new medium, the Internet. They will have to be able to orchestrate a piece containing sound, text, photographs and video. Newspapers and online news providers are in a constant dialogue. The print versions steal from their online cousins and the online newsproviders paste print stories onto their sites. The two media are inseparable. This can be seen in the story length, packaging, the readability of print

newspapers and the use of "shovelware" in the online versions. While it seems that one medium may dominate the others, online media will just be another option for getting information. Each medium has its own niche and all media can work together to give their prospective audiences what they demand.

This paper is a study of the relationship between print and online news. It is an in depth criticism with a literature review of known scholars and a comparison of traditional media sources, focusing on newspapers and online news sources, beginning with an overview of the simple concepts of hypertext and hypermedia, the root of this change. Hypertext is not a new phenomenon; it was around even before the 1960s. But what it has left behind is a new way of thinking and writing. These changes and evolutions in news media content and structure can also be documented through mass media history. With each new technology journalists saw change coming. First in the mid 1970s, many newspapers tinkered with the idea of videotext, an electronic text-only news delivery service, then came fax services, users received customized news reports by fax, in the 1980s and within the past five years, came what we know as Internet news channels.

To provide an analysis of the relationship between print and online media, I have examined story length, readability, shovelware and story packaging in several versions of *The Dallas Morning News* both print and online. Samples were taken from the years 1985, 1990, 1995 and 2000 in an attempt to measure some of this dialogue. In one analysis, story length was measured in the print version as an indicator of how newspapers must compete with the wealth of information online. The second analysis uses the Flesch Formula to measure the grade level of the top stories. A third analysis looks at the amount of "shovelware" online. Shovelware is printed content pasted or shoveled into online media. Most often print "shovels" online, but sometimes the reverse can be true in late-breaking stories. The same stories run in print and online, detracting from the immediacy of the Internet. As larger newspapers develop online staffs, the online newspapers will contain more original content. Finally, story packaging in the print version of *The Dallas Morning News* was analyzed. More story packaging in print newspapers reflects what can be found online. A story package can contain the text, photos, a graphic or two and possibly a sidebar. Online, audio and video content can be added to the mix. These are good

indicators of the relationship between print newspapers and their online cousins.

Journalists have the responsibility to explore choices and decide how best to serve readers and viewers of new media. The Internet and technology have changed the very concept of news in both print and online forms. Stories are longer, but are written at a lower grade level. Shovelware is abundant online, and print papers package their stories just like the online versions.

Definition of Terms

Hypertext is the term coined by Ted Nelson in 1965 originally used to mean nodes consisting of primarily written material that can be linked to other nodes. When users click on a word that has been linked it sends them to another object of the link. Hypertext in its most basic form consists of nodes and links (p. 437).

Hypermedia which some scholars have used interchangeably with hypertext is an expansion to include more than just text. Hypermedia can include pictures, sound or video. It encircles hypertext and is an evolution of the term. The term hypermedia is less restrictive than hypertext (p. 437).

Multimedia is the term used most often today in referring to hypertext and hypermedia. It too is an

evolution from the original terms of hypertext and hypermedia. Multimedia is more of a presentation of sound, text, video and photos presented to the user in one place. "Multimedia is the use of the computer to present and combine text, graphics, audio and video with links and tools that let the user navigate, interact, create and communicate" (p. 5).

Shovelware is a term traditionally defined as print news content pasted online. No change has been made to the content; online is the same as print. However, with many newspapers breaking stories online content sometimes shovels in the opposite direction, from online to print.

Interface is what the users see on their computer screens while surfing online or running a program. It is also the ease of use in navigating the program.

Purpose

Much of the past research has focused on print newspapers and online newspapers as competitors. This content analysis focuses on how they work together, and what each can gain from the other. This study seeks to answer the following questions.

1. Has story length in print editions of *The Dallas Morning News* increased over the past 15 years in response to the Internet?

2. Has the grade level of the narrative in print editions of *The Dallas Morning News* decreased over the same 15 years?

3. How much shovelware exists in *The Dallas Morning News* online as a result of newspapers not having the resources to develop original web content?

4. How is The Dallas Morning News packaging its stories in response to what can be found online?

Methodology

To conduct the content analysis analyzing story length and readability the author collected five days of the printed version of *The Dallas Morning News* from the week of January 9-15, 1985; five days of the printed version of *The Dallas Morning News* from the week of January 9-15, 1990; five days of the printed version of *The Dallas Morning News* from the week of January 9-15, 1995; and five days of the printed version of *The Dallas Morning News* from the week of January 10-16, 2000. Only the weekdays of these weeks were selected to better represent the traditional form of news media content. The author found the weekend editions contained too many feature stories to give an accurate representation.

Story Length

For the analysis, the top three news stories of each day were analyzed by counting story length. Two graduate student coders made the counts in order to ensure accuracy. Story length was counted by lines with each line averaging 5.5 words to give consistency.

Grade level

Grade level was determined with the Flesch Formula Grade Level Scale by counting out the first 100 words of the story excluding proper nouns, coders were given information on what constitutes a proper noun, counting the number of sentences in this 100-word sample and finding an average sentence length for the sample. The coders then counted the number of syllables in this sample. The average sentence length was then multiplied by 1.1015 and the number of syllables was multiplied by .846. These figures were then added together and subtracted from 206.835. The formula yielded a score between 0 and 100. These scores were then compared to a chart (shown below) and the grade level was determined.

90 to 100	5th grade
80 to 90	6th grade
70 to 80	7th grade
60 to 70	8th to 9th grade

50 to 60 10th to 12th grade (high school level)
30 to 50 13th to 16th grade (college level)
0 to 30 college graduate

The Flesch Formula Grade Level Scale was used because it is a widely used determinant of grade level for narrative (California, 2000). By finding the average story length and readability for each of the five-year time increments the author could then make a judgment on story length and readability have changed over the last 15 years.

Shovelware

For the analysis of shovelware both online and printed versions were collected for the weeks of Jan. 10-14, 2000; Jan. 24-28, 2000; and March 20-24, 2000. Again, only weekday papers were collected. When the word shovelware is used it is understood to mean print content used online. To determine the amount of shovelware the researcher compared the "front page" of the online version to the print paper. The front page of *The Dallas Morning News* online was considered to be the top stories listed in the top left box of the screen. The researcher determined how many of these stories were shovelware by comparing them to the printed version. The stories were considered shovelware if they were taken word for word from the print version. In addition, the researcher determined if the stories online that were not

shovelware were wire stories from the Associated Press, United Press International, Reuters, etc.

Story Packaging

Finally, the researcher conducted a brief analysis of story packaging in the print version of *The Dallas Morning News* for the week of March 20-24, 2000. The researcher looked at the story packages included on the front page of paper and the links that followed. A story package is determined by a story having more than one photo and possibly including a graphic, sidebar or survey. The appearance of more and more story packages is an indicator of the web's influence.

REVIEW OF LITERATURE AND HISTORICAL PERSPECTIVE

Hypertext and Hypermedia

To understand the changes occurring in news media brought on by the onslaught of the Internet, it is helpful to look at where these changes began. Hypertext and hypermedia were the original program designs that incorporated text into electronic media. The terms are still used today to describe the content form of electronic media. Hypertext was the start of the Internet and the start of electronic media in the form seen today.

Ted Nelson coined the term "hypertext" in 1962 (Pavlik, 1998, 136). He defined the term as "non-linear text that may

have many pathways" (p. 136). This technology has served as the foundation of the World Wide Web. On the Internet, web sites are linked electronically in spider-web fashion in an n-dimensional space rather than linearly as they are in conventional media such as newspapers or television (p. 137).

With beginning hypertext, writers first experimented with writing in an electronic medium. Hypercard is software that allows writers to put bits of information or text on electronic cards. These cards can then be shuffled, rearranged in any form and linked to from any other card. While the original versions of hypertext are now outdated, it is the predecessor for the Internet and the electronic form of media or writing (Landow, 1992, 14). It is important to understand the beginnings of hypertext in order to morw fully understand how print and online are linked.

George Landow (1992) argues that to understand and to read this form of writing and medium, we must "abandon conceptual systems founded upon ideas of center, margin, hierarchy and linearity and replace them with the ones of multilinearity, nodes, links and networks" (p. 2). Readers are no longer just an audience, but participants as well. They decide where to go next; they construct the story. They can be in charge of narrative flow. The audience can make a

story line non-sequential by linking to other parts of the text.

Hypertext is non-sequential. There is no single order that determines the sequence in which a text is to be read (Nielson, 1990, p.1). Hypertext is composed of nodes and destination nodes. A node is where a reader may begin, the "start" of the story, but out in the disk space there are destination nodes. The reader may link to one of these destination nodes from the "starting node," and then to another destination node or back to where the reader began. As the reader goes through the text he is forming a spider web that is nearly impossible to retrace and becoming increasingly complex (p.3). The participant is creating his own story line. This may lead to some credibility problems in news media. If readers create their own story lines who is to discern truth from fiction?

Hypertext can be used advantageously to give a more complete look at the subject being studied. "In hypertext systems, links within and without a text – intratextual and intertextual connections between points of text (including images) – become equivalent, thus bringing texts closer together and blurring the boundaries among them" (Landow, 1992, p. 61).

While many fear this to be the end of the printed word, it is really only an expansion. Reading a text in electronic form can allow us to read the text more completely. In reading the printed form, a reader may come across many references to other works, citations or end notes, but finding those works is time-consuming. This also occurs within a news story. For example, as readers follow a text on a recent plane crash, they can quickly link to information on the company that produced the plane or even a site with weather updates to determine if the weather may have caused the disaster. To compete, newspapers must provide more in-depth coverage. Reading in the electronic form, a reader could simply and quickly link to these other references and get a more complete understanding of the main text. Nielson (1990) has called hypertext the "generalized footnote" (P.4).

Hypertext and hypermedia are often used together. In some ways they are linked inseparably. Hypermedia give writers a new environment to create in. It is important to understand the evolution of hypertext, hypermedia and multimedia. This evolution closely mimics the evolution of the media from print to broadcast to online, and this evolution can be tracked by looking at story length, grade level, shovelware and story packaging.

Hypermedia are the environments in which hypertexts are created and give the writer a new way of organizing text. The goal of most writers is to create a linear structure in their writing. "A" happens and then "B" happens and so on until the story ends at "Z." This is almost impossible as thoughts are constantly flooding the writers' heads as they write. It is not easy to maintain the discipline of a narrative structure. Saint Teresa once said, "I only wish that I could write with both hands so as not to forget one thing while I am saying another" (Bolter, 1990, p. 134).

Hypermedia provides writers and journalists an easier way to organize their texts. It is similar to writing notes on index cards in preparation of a research paper. The researcher puts these cards in an order and begins to write. However, at any point the writer may change the order of these index cards. Preliminary research and writing become actual text. Journalists employ this same technique when putting together news stories, or adding a sidebar to an already written piece.

But in the world of print associative writing is considered only preliminary. Teachers of writing often encourage their students to begin by sketching out topics and connecting them through lines of association, a technique often called 'prewriting'—

wrongly, for this technique is already an act of writing. In prewriting, the writer creates a network of topics. The computer can maintain such a network by removing connections and establishing subordination until he has achieved the strict hierarchy of an outline (Bolter, 1990, p. 134).

This new form of organizing and writing are forcing journalists to learn new skills for online media. Journalists of the future may be more information managers than information originators. Because of hypertext format and hypertext availability, the wealth of information and news at our fingertips can be bottomless. How many media junkies have read every single article available pertaining to plane crashes (even down to what the pilot ate the night before)? This flood of information must stop somewhere, but with hypertext and online technologies, it is only limited by what and how much people will read.

Historical Perspective

In order to understand fully the impact of hypermedia, and the changes it has brought to news media content and its narrative structure, the history of mass media must also be explored. An inventory of mass media from newspapers to the Internet will help clarify the changes and evolution of the various media. The easiest way to look at the history of

mass media is through the eyes of one of the earliest participants, the newspaper. The newspaper has endured all of the various innovations and technologies, but the question remains whether or not the newspaper will weather the Internet as it did radio and television. So, it is important to look at how other media have affected newspapers to anticipate how online media and technology will affect the newspaper.

Years ago street corners of every major American city had newsboys hawking the latest front-page headlines (Winston, 1998, p. 63). They sold their papers and went home while the publishers turned a tidy profit. In the days before radio, television and online news, America relied on these newspapers to get their daily news fix. Now, citizens have a wide range of functional alternatives to compete with the major urban daily paper. People are turning on their radios, television sets and computers to get their news (Diebert, 1997, p. 96).

News content has become a hybrid of the various media to reflect and survive changing technologies. According to Thorn and Pfeil (1987), "The history of newspaper circulation is the story of an industry constantly adapting to social and economic changes, new technologies and the demands of a changing lifestyles" (p. 77).

Radio

When radio was invented in the early 1900s the world saw an increase in the speed of communication. Originally, no one understood the need for radio because of the telegraph and telephone. Radio was called a "telegraph without wires" (Winston, 1998, p. 74). But, during World War I, radio served the world well. In November of 1920, the first radio station, KDKA, began broadcasting in the U.S. Mass media were forever changed (p. 75). Winston discusses the homogenization of media with the invention of the radio. This homogenization would continue through television and the Internet.

The radio brought home this overall process of homogenization. The rising dominance of the nuclear family (as opposed to the extended) family and the provision of ever more comfortable accommodation for that family, reaching even into the working class, had in effect created a further movement to take these homogenized entertainments into the domestic sphere (Winston, 1998, p. 77).

Newspapers saw radio as a potential investment as well as a threat. Newspaper publishers tried to suppress the news aspect of radio in efforts to squelch the competition. As radio became a mass medium in the 1920s, the American

Newspaper Publishers Association (ANPA) sought to restrict its access to news as newspapers owned the wire services and could simply close off radio's easiest source of news content (Diebert, 1997, p. 82).

The 1932 election and the Lindbergh kidnapping brought matters to a head. The ANPA told its members to stop running radio listings even though they owned the stations covered (Winston, 1998, p. 76). The 1933 Biltmore agreement settled the dispute between radio and newspapers. In return for the papers publishing their listings, radio would restrict news operations. These disputes prevented the full development of radio as a mass medium for more than two decades (p. 86). This new medium did not wipe out the old, and cooperation was possible.

Television

The next challenge for newspapers to overcome was television. The crucial factor which transformed television into a mass media was the spectrum capacity of the electronic industry. Defense spending expanded the radio industry by 1,200 to 1,500 percent. After the war, the United States was left with an abundance of radio manufacturing facilities. The solution for what to do with this space and technology was television. Even though the technology of television was developed before World War II,

it was not until the 1950s that this medium became successful. In 1952 the world had four networks, 52 stations and a million sets in 29 cities (Winston, 1998, p. 104). Leaders of newspapers and radio feared that television would be the end of their industries, but they both adapted and survived.

Internet

Newspapers would then face their greatest challenge yet, the Internet. The predecessor of the Internet was introduced in the 1960s as ARPANET. This was a system designed primarily for defense and university research dedicated to defense industries (Brown, 1999, p. 59). Members of the media picked up on the ease of e-mail and access to databases and they saw a golden opportunity in the new technologies. In the 1970s, "online" for newspapers meant audiotext and videotext systems accessed over telephone lines. The 1980s and the early 1990s brought shovelware content to proprietary services such as the Source, Comuserve, Prodigy and a small dial-up program called America Online that eventually crushed them all (p. 59). There were deals with cable TV companies, and by the mid-1980s many newspapers were hoping to cash in by delivering their product by fax. That none of these gambits really caught the public's imagination didn't stop

newspapers from piling into cyberspace (p. 54). Brown describes what it took for "online" to really catch on.

Different papers took different electronic paths, but in the mid-1990s, like tributaries in a vast watershed, they all began to converge, drawn together by developments in the technology. First came the stunning advances in computing power. Then software designer Tim Berners-Lee devised the coding that imposed the conventions of the World Wide Web on the domain of the Internet. And finally from the University of Illinois (and subsequently Netscape), sprang the browser code that put pictures with text and made it possible to traipse about the terra nova of cyberspace in style (p. 59).

Now we are seeing even more converging in these technologies weaving the various forms of media even more tightly together. Initially, however, newspapers stood relatively still. In fact in the early 1990s, the newspaper industry worked hard to block the inevitable development: the regional telephone companies' entry into the electronic information market -a battle fought and lost in the courtroom of federal Judge Harold Greene and the halls of Congress (McKenna, 1993, p. 19). Then a few newspaper pioneers began to stake their claims in this Wild West

frontier. The first wave hit about 1982. Eleven U.S. papers made portions of their print content available electronically on Compuserve. They included the *Atlanta Journal Constitution*, *L.A. Times*, *Washington Post*, *San Francisco Examiner*, *San Francisco Chronicle*, the *Star Tribune in Minneapolis*, and even the *Middlesex News* in Framingham, Massachusetts (Brown, 1999, p. 60). The problem was that Compuserve charged \$5 per hour, and the modems of the day were slow. What would cost 25 cents to get in print cost \$30 to get online.

The Electronic Trib

But in 1990, online pioneer David E. Carlson, founder of the Interactive Media Lab at the University of Florida started up a train he couldn't turn back. By this time Carlson was working for the *Albuquerque Tribune*. He noticed a posting asking for someone to work 10 hours a week on an electronic version of the paper. He quickly signed up. What made all the difference in the world was that the personal computer had taken off. The *Electronic Trib* – as the service was to be called – was to be distributed and accessed by readers from a PC (Brown, 1999, pp. 60-61).

"As nearly as we've been able to tell, it was the first multilane, PC-based online newspaper product," Carlson said. "It occurred to us that PCs had become powerful enough to

house an online system. We leased a 286 clone from a local store and customized some bulletin board software and hooked it up to four incoming phone lines. The total cost was about \$5,000. We did absolutely no market research and we had no idea whether anyone would be interested or not. My boss said it would be incredible if we had 400 users in a month. We had 400 users in the first 24 hours" (p. 61). They started adding more phone lines, Carlson, a design editor, began to spend half of his day on this electronic newspaper. He sold memberships, for \$50 a year you could log on for three hours a day.

According to Brown, this new technology attracted a lot of attention. Knight-Ridder was soon calling. The *E-Trib* had been going for a while, the *Chicago Tribune* had gotten some of its paper online earlier, but Knight Ridder's *San Jose Mercury News* and their online version Mercury Center came galloping across the finish line on the back of America Online, making the *San Jose Mercury News* the first newspaper to get its complete news content and classified ads online (p. 62). Awards and accolades followed and so did others.

The Dallas Morning News was one of the last of the major papers to put up a web site, jumping aboard finally in 1996. And when it did, it did so with a bang and some

controversy. In the words of *American Journalism Review* editor Rem Reider,

So what was up with the *Dallas Morning News* giving away its story about Timothy McVeigh's alleged jailhouse confession—to its own Web site, no less—putting the story into play hours before the newspaper was published? Was this a case of the paper scooping itself? Or was it in fact a breakthrough, a major step toward a more sophisticated relationship between print newspapers and their online cousins? (Rieder, 1997, p. 6).

At the time print newspapers were rather hostile to their online counterparts. What the paper did was smart. Regardless of the paper's motives for posting the story, the implications of what the *Morning News* did are enormous. Too often the traditional media and the new media are depicted as rivals in a death match. In fact, the Dallas episode shows how well they can complement each other (p.6). Reider (1997) admires the risk the Morning News took in breaking the story online.

So what did the *Morning News* gain by breaking the story on its Web site? It didn't have to sit on the piece because of artificial deadline barriers. It got its story out first. Its efforts received enormous

exposure. As far as 'scooping itself,' everyone knows *The Dallas Morning News* broke this story (p. 6).

Even though *The Dallas Morning News* was a little late, it came in right on time. As popular online theorist Jon Katz said, "This has been the breakthrough people have been waiting for. It's tragic that it took so long to happen" (p. 6).

Even though the Internet is a powerful news source, the newspaper will never go away. It will just have to reinvent itself. Newspapers are starting to come around. They are beginning to adapt themselves to face the competition television and online news bring. Newspapers have responded by streamlining operations, showing a greater commitment to newspaper-related research and development and adjusting their formats to better suit readers (Anderson 1979, p. 32). "Newspapers have made subtle adjustments to maintain their momentum in relation to television and the Internet by using more pictorial content and simpler formats." (Diebert, 1997, p. 1) What mass media history has shown is that each technology only enhances what we had before. It does not replace. We see this change and enhancement through looking at story length, grade level, shovelware and story packaging. When a new form of media is introduced, the old forms evolve and settle into their own niches.

Media Conglomerates

The trend among media businesses now is to merge into one great media conglomerate, and online news factors into this. As many local newspapers, television and radio stations converge, we may see one mega site with each piece equally strong. This very fact may help the newspaper survive (p. 595). Diebert describes the current trend among these monster media conglomerates:

The current mania among transnational communications is to merge themselves into the ultimate TV-radio-magazine-newspaper-movie-video-game-cable-Internet megalomere. Time Warner and Sony and the rest are so frightened they will miss the next big money pot that they are hedging their bets. They are prepared and more's the pityable to buy the future whatever it will be (p. 596).

Newspapers believe their readers will follow them into cyberspace or - if those readers, as is more and more likely, are already exploring cyberspace on their own for reasons unrelated to the newspaper - at least see the electronic newspaper as a logical pit stop on the information highway (p. 596). Brown (1997) counters for the newspapers' side:

Pundits have been predicting the death of newspapers for more than 100 years. In 1880, the assassin was supposed to be photography. In the 1920s, newspapers were going to be destroyed by radio; in the 1950s, TV was going to destroy newspapers and radio. In the 1990s the Web was going to destroy, well, you get the idea, and it is a misleading one because the main theme of media history is not extirpation of one form by another, but mutual accommodation among forms (p. 53).

By exploring mass media history, we can come to a better understanding of how news content has evolved through the changing technologies. We have seen newspapers weather radio and television and they will weather the Internet. Old media do not die they evolve. New media only enhance what we already have. Each aspect will support the other to make them all better. Competition is usually considered healthy, and in a capitalist world it is what makes companies and groups better themselves. The relationship the newspaper has with online will only add to its marketability.

New Media

With online news becoming a reality of everyday life it is important to take a look at how this concept has influenced media content, primarily in online media, but in the printed form as well.

The move toward increasing reliance upon technology is undeniable for today's media. A 1993 survey of executives from dozens of news organizations by Freedom Forum's Media Studies Center suggests that technological convergence and profits are driving today's newsroom (Pavlik, 1998, p. 6). Pavlik describes what this means for new media.

Since networked new media can be interactive, on-demand, customizable; since it can incorporate new combinations of text, images, moving images and sound; since it can build new communities based on shared interests and concerns; and since it has the almost unlimited space to offer levels of reportorial depth, texture and context that are impossible in any other medium - new media can transform journalism (1997, p. 30).

Newspapers take the leap into online when they can offer the well-written content online sites need so badly. What Pavlik is describing is the impact online news can have on journalism. For some generations they have never before witnessed the coming of a new form of media. Those young generations who are watching this medium develop will be the journalists of tomorrow. The changes they will see and develop cannot be predicted.

The Modern Newsroom

What does this mean for the modern newsroom full of young journalists and seasoned journalists ready to get in on this new technology? Some papers are finally beginning to see how a multimedia newsroom can boost their news coverage. *The Dallas Morning News* saw this when it released Timothy McVeigh's confession online. But some papers have been slow to adapt. *The Los Angeles Times'* web team? They're down the street. *The New York Times*? Across Times Square. *The Washington Post's*? Across the Potomac (Lasica, 1998, p. 72). "What does that tell you psychologically about how the newspaper bigwigs view the web operation?" asks Howard Witt, the *Chicago Tribune's* associate managing editor for interactive news (p. 72).

However, these are the papers that are leading the rest and providing the most original web content. For other papers, the trend is toward a multimedia newsroom. *The Wall Street Journal*, *Detroit Free Press*, *Christian Science Monitor*, Fort Lauderdale's *Sun Sentinel* and *Kansas City Star* all have integrated newsrooms. How does this benefit a paper? The *Sun Sentinel's* newsroom provides an excellent example. The paper's staff of 11 news, sports, features and graphics producers is dispersed throughout the newsroom. Reporters who covered the pope's trip in January phoned in

audio dispatches for the paper's web site twice a day along with their stories for the print paper. And when breaking news happens – as when the sheriff of Broward County died – a “rewriter” dusted off a prepared obit, updated it and had the news online in 15 minutes (p. 72). Newspapers are now realizing that in order to succeed they must integrate their newsrooms. “The newsroom is the heart and soul of a news operation. If a paper is to ultimately succeed in cyberspace, it needs to take its Web journalists out of that small back room and put them in the trenches where they belong” (p. 72).

Without the limit of space a whole new way of telling a story is opened to the writer. The story can be a package with links to archived stories, graphics, video and audio, combining all forms of traditional media into one, making the multimedia newsroom a necessity. A recent example is “Blackhawk Down,” a 30-part series produced by the *Philadelphia Inquirer*. This series tells the story of the October 1993 Battle at Mogadishu in Somalia. This online series includes links to text, audio, Pentagon videos, *Inquirer* photos, U.S. Army radio broadcasts, map segments and other information (Truitt, 1997, p. 48).

“This series shows how effective a medium the Internet is. You get to hear tapes of battle radio, the fear in the

soldier's voices, and get an idea of what it was like to hide behind a three-inch pipe during a fire fight," said Jennifer Musser, *Philadelphia* online editor (p. 50).

When the series ran in print and online in December of 1998, she says, it generated 40,000 page-views per day. More than a year later, it earns about 2,000 views daily (p. 50).

Because of online's ability to provide unlimited coverage we are beginning to see even more in-depth coverage in print news formats. While long stories are nothing new, they are more prevalent. They have to compete with the depth of what can be found on the Internet. Stories are often longer to compete with what can be found online (Brown, 1997, p. 59). This gives newspapers their niche: breaking news online and the details in print.

New Media Literacy

To understand how this new medium will complement the old, Benjamin M. Compaine, Bell Atlantic Professor of Telecommunications at Temple University, suggests that we need to think in terms of "new media literacy," where journalists must be well-versed in a variety of talents, a literacy based on fluency with all media, especially those based on images and sound (p.11). This changes the way stories are told.

The notion of storytelling has evolved very little until recently in print media and broadcast. Stories still had a beginning, middle and an end. Readers still dealt with a single plot or line of narrative. Traces of the old still remain with online media. Much of online media is still the old form pasted into this new medium (Aarseth, 1997, p. 63). Bruce Page, president of Magnetic Press, a small firm in Soho, describes much of this new media as "Shovelware," electronic products that are nothing more than their paper products converted to electronic form (Pavlik, 1998, p. 186). The best national news sites are those that, along with repackaging or "repurposing their regular print content, offer original material designed specifically for the web (Pavlik, 1997, p. 31). In the researcher's exploration of *The Dallas Morning News* this has been found to be true. The *Morning News* has not yet come to a place where it can offer all original content.

Content Providers

How do we create content for a new medium? Who are the content providers of this new medium? They are referred to as content providers because they are not all authors or writers, but photographers and videographers. What will the value of these new content providers be? Will they continue in the tradition of the great publisher of the newspaper or

magazine publishing world, placing concerns about freedom of expressions, privacy and democratic processes high on the communication agenda? (Pavlik, 1998, p. 351).

It must be considered that anyone can be a "content provider." Traditional journalists are "content providers," writers and visual artists working for corporations such as Microsoft are "content providers" and audience members are "content providers." Audience members are rapidly becoming cocreators of media content through chats and interactive news sites. Narrative structure is in flux as hyperfiction and virtual reality become mainstream media products (p. 204).

Internet Portals

The trend in online news is turning to Internet portals as a source of news. Newspapers themselves can become Internet portals. A portal is exactly what it sounds like, an entryway. Originally Yahoo and Excite were searchsites, but then they started adding in features designed to keep users on their pages. One of the first things they brought onboard was the media. The portal strategy has two goals: 1) to accumulate as many visitors as possible and 2) to keep visitors to a site as long as possible. According to James Ledbetter (1999), New York bureau chief of *The Industry Standard*, "Theoretically, a portal offers everything a that

the web reader might crave – from instant stock quotes to interactive maps, from breaking news stories to buying and selling opportunities for free e-mail – all to keep the visitor around long enough to notice the ads (p. 22).

Local media companies are buying into the idea of portals by combining all of their resources into centered sites. In a speech by Robert W. Decherd, chairman, president and chief executive officer of A.H. Belo, to the Texas Associated Press Managing Editors 2000 Convention, Decherd remarked on the future of such media conglomerates as Belo. "Our strategy focuses on becoming like our new media competitors... developing multiple revenue streams and using digital capabilities. We re-purposed our proprietary local content, exploit our ownership clusters, form strategic relationships with other local media, develop our interactive businesses, and employ our new digital technologies – all to increase revenues" (p. 5). These media clusters will allow the companies to create mega local news portals by using all of their resources together. For example, in San Antonio Belo and Hearst have jointly created a web portal site called "MySanAntonio.com," which uses the combined resources of Belo's KENS-TV and Hearst's *Express-News* (p. 8).

This could also take away the role of the press as the fourth branch of the government. As news consumers we rely on journalists to help filter the abundance of information heading our way. We expect them to give us the most important and accurate information (McKenna, 1996, p. 22). The concept of computers as gatekeepers is not so futuristic as it was 10 years ago:

The essential tasks of journalists actually have a lot to do with reducing information. Interpreting the news and separating out the extraneous is pivotal to the profession. Therefore, dumping a load of facts into a bottomless database would do little to aid public discourse, inform the community or attract a new generation of readers (p. 22).

With the role of editor as gatekeepers fading, who will monitor the content? Not the government, as any attempt in regulating the Internet has been immediately shot down. This draws into question the credibility of online news. With the pressure to get stories up on the web as soon as they happen, credibility is sometimes sacrificed. Reporters may not have the time necessary to put together an accurate and balanced story. All sources may not be contacted.

Ted Koppel, anchor of ABC's "Nightline," in his first interview on the subject of the Internet, had some words of

warning for online reporters eager to reinvent the wheel of journalism:

Reporting is not really about, 'Let's see who can get the information to the public as quickly as possible,'" Koppel said. "It's about, 'Let's see who can the information to the public as soon as we have had a chance to make sure the information is accurate, to weigh it against what we know, to put it into some sort of context.' As a news consumer I'm more interested in the quality of information I'm receiving... But, if you succumb to competitive pressures and you're willing to sacrifice quality and context and completeness, I think that's going to rear up and bite us in the ass (qtd. in Lasica, 1997, p. 64).

This puts us in a precarious situation. Do we want information fast or do we want it accurate? What we want is both. Some online sites struggle to gives us both. The Monica Lewinsky/Secret Service story should be a lesson for all.

Another question of credibility is the source of finance behind the news sites. For example, most news stories online link to other web sites; you can jump from site to site with the click of a mouse. Linking is an integral to the medium, and readers should and do expect it.

But readers do not expect news sites to include links that were paid for. Pavlik sees this as the point where true journalistic integrity comes into question "If and when online news publishers are tempted to sell commercial links inside news stories, we will already be way down the slippery slope of credibility" (Pavlik, 1997, p. 33).

Although, the change to online media has been a little rough around the edges, it is here to stay. According to News Link of *American Journalism Review*, a web site providing the links to the Internet versions of newspapers, the number of U.S. newspapers online has grown markedly. A 1996 survey of newspapers and magazines found that 77 percent of all newspaper and magazine editors planned an online edition. In 1997 an estimated 72 percent of daily newspapers expected to be online within five years (Middleberg, 1997). Unprecedented growth abroad and in smaller U.S. markets has pushed the total number of newspapers publishing online to nearly 80 percent more than many experts had predicted by the end of the year (Meyer, 1998).

However, user interface is still not quite up to par. Reading a newspaper online is difficult, cumbersome and time-consuming. Katz (1997) explains that much of what "still works about a paper – convenience, visual freedom, a

sense of priorities, a personal experience – is gone. Online papers throw away what makes them special” (p.74).

But, many newspapers are realizing this and better adapting their interfaces. Newspaper designer Roger Fider, who has designed and redesigned dozens of newspapers around the world, has created an online news product that takes a different approach to design. “Rather than requiring the user to take a multiple choice test, it presents information in a familiar, intuitive format that takes him or her easily through the electronic product” (Pavlik, 1998, p. 192).

Also, with an electronic format there is the ability and the space to have a more graphic presentation. Web design is typically graphic heavy and light on text. But not all online news sites are following this trend. Some sites are still heavily content-oriented, putting out product based on text. *The Dallas Morning News* follows this example by focusing more on the heart of the story, the text, than the added peripherals.

Although electronic news delivery will have an important place in the future, computerized news-on-demand services will never entirely replace the newspaper. Meadow disagrees: There has to be a limit to media growth, of course. We cannot keep increasing our use of media. The length of the day is still 24 hours.

It may well be that leisure has stopped increasing for most of us, and this means that any new media growth has to come at the expense of older media or other forms of recreation and instruction (1998, p. 40)

A comparison of the front pages of newspapers from 10 years ago to the front pages of today show some dramatic differences in the use of graphics to tell stories and in the structure of the narrative. Stories are longer to reflect the amount of available space on the Internet, stories are packaged with audio, video and interactives and the newspapers are forced to compete. And, newspapers will compete; they will develop that niche that makes them uniquely print. What newspapers bring to the table is the solid reporting the online sites must have to survive, because of this important role, newspapers will always have a place in online media. And just as newspapers are influencing online in this time of new media; online is influencing print through longer stories, a lowered grade level and story packaging.

METHODS AND RESULTS

Quantitative analyses of print and online content focused on four areas: story length, readability, shovelware and story packaging.

Story Length

The gradual increase of story length in print newspapers during the past 15 years is an example of newspapers competing against their online counterparts. The wealth of information available on the web is only limited by what the reader wants to read. Newspapers must compete by offering in-depth articles with a great attention to detail. Newspapers may not prevail in immediacy, but they can give the most attention to detail. Someone may go online to get information on a breaking story, but they will return to the print versions for the developed details later.

This analysis compared one 5-day week of top stories from a span of 15 years of *The Dallas Morning News* for the years of 1985, 1990, 1995 and 2000. Story length was counted using an average line length of 5.5 words for the top three stories of each day of the weeks.

The findings of this content analysis were in accordance with the author's hypothesis as shown in Tables 5-1, 5-2, 5-3, 5-4 and 5-5. In analyzing the 1985 edition of *The Dallas Morning News* the average story length of 15 different stories during the week of January 9-15 was 116.93 lines. For the 1990 printed edition of *The Dallas Morning News* for the week of January 9-15, the average story length was 147.2 lines. For the 1995 printed edition of *The Dallas*

Morning News for the week of January 9-15, the average story length was 192.8 lines. And, for the 2000 printed edition of *The Dallas Morning News* for the week of January 10-16, the average story length was 166.27 words.

Table 1-1 1/9/85- 1/15/85

Date	Story	length
1/9/85	1A	162
1/9/85	2A	57
1/9/85	3A	168
1/10/85	1B	48
1/10/85	2B	151
1/10/85	3B	134
1/11/85	1C	123
1/11/85	2C	206
1/11/85	3C	65
1/14/85	1D	144
1/14/85	2D	192
1/14/85	3D	46
1/15/85	1E	152
1/15/85	2E	47
1/15/85	3E	59
	mean	116.933

Table 1-2 1/9/90- 1/15/90

Date	Story	length
1/9/90	1A	80
1/9/90	2A	83
1/9/90	3A	128
1/10/90	1B	136
1/10/90	2B	124
1/10/90	3B	100
1/11/90	1C	106
1/11/90	2C	148

1/11/90	3C	127
1/12/90	1D	150
1/12/90	2D	168
1/12/90	3D	148
1/15/90	1E	100
1/15/90	2E	184
1/15/90	3E	426
	mean	147.2

Table 1-3

1/9/95- 1/13/95

Date	Story	length
1/9/95	1A	549
1/9/95	2A	241
1/9/95	3A	159
1/10/95	1B	141
1/10/95	2B	155
1/10/95	3B	128
1/11/95	1C	226
1/11/95	2C	215
1/11/95	3C	173
1/12/95	1D	82
1/12/95	2D	179
1/12/95	3D	136
1/13/95	1E	154
1/13/95	2E	222
1/13/95	3E	133
	mean	192.867

Table 1-4

1/10/00- 1/14/00

Date	Story	length
1/10/00	1A	155
1/10/00	2A	215
1/10/00	3A	107
1/11/00	1B	162

1/11/00	2B	215
1/11/00	3B	201
1/12/00	1C	201
1/12/00	2C	133
1/12/00	3C	181
1/13/00	1D	208
1/13/00	2D	188
1/13/00	3D	140
1/14/00	1E	115
1/14/00	2E	114
1/14/00	3E	159
	mean	166.267

Considering the Internet became more widely used around 1992, considered the start of the modern World Wide Web, it is not surprising that the 1995 and 2000 stories were considerably longer than those in 1985 and 1990.

The majority of top stories on the front page during the week of 1985 centered mainly around national events. An important story about U.S. and Soviet arms talks weighed in at only 57 lines. The top national stories seemed to be rewritten wire stories. 1990 showed a lot of the same; short wire stories. However, one story skewed the results of the 1990 analysis if story length. The top right-hand corner story for Jan. 15, 1990 came in at 426 lines. It was a touching story about an American held hostage in Panama. His story is a minute-by-minute of the 80 hours he was held hostage.

The years 1995 and 2000 brought more news features to the front page of *The Dallas Morning News*. Including a 549-line story on Jan. 9, 1995 on sex offender reporting, accounting for the sharp increase in story length for 1995. On Feb. 1, 2000, *The Dallas Morning News* ran one of the whopper plane crash stories it is so famous for, including up to the minute coverage on the minute-by-minute descent of the plane and a sidebar describing in minute detail the lives of the pilots. This story is an example of the trend of whole sections devoted to major disasters. It is not a new thing, but it occurs more often. Major stories are grouped with multiple photos, lengthy text, graphics, sidebars and surveys; a direct imitation of what can be found online.

It has been only recently that online news has gained popularity. Many newspapers were late in jumping onto the online news wagon. *The Dallas Morning News* did not even have an online edition until 1996. And much of the content was originally borrowed from its printed cousin. It has only been in recent years that many papers are seeing a need for original content for their web editions. The author surmises that the increase in story length is representative of society's desire for more and more information. Online news

fulfills this desire and newspapers lengthen stories to compete.

Competitiveness often shapes the news media content. In order to survive, newspapers must give the readers what they want. And what they want is in-depth coverage. This is not to say that newspapers are doomed to demise. They can offer much of what the online stories do not, details.

Conrad Black of *The Wall Street Journal* tells readers not to write off newspapers yet. Ironic, considering the *Journal* is the only online newspaper showing a profit. Black said in a March 6, 2000 article:

There is a market for good, precisely targeted product in all media and there is no evidence whatever that the practice of reading from a paper page is becoming outdated or even unfashionable. The portability and non-linear nature of a newspaper, facilitating random reading, will continue to be a convenience of the traditional newspaper when it is cleverly and unpredictably edited (p. 32A).

Readability

For this analysis readability is defined by grade level. For the benefit of some form of measurement the Flesch Formula Grade Level Scale was used to chart the decrease in grade level, and thus readability during the 15-

year period of 1985 to 2000 with the advent of the Internet in 1992 falling somewhere in between. This decrease in grade level can be an effect of the Internet. Online stories tend to be written in a different style, and the print versions are starting to copy that style to appeal to some of the online audience. This does not necessarily mean a dumbing down of the media; it is just a different way of writing.

One 5-day week from the print version of *The Dallas Morning News* was analyzed for the years of 1985, 1990, 1995 and 2000 using the Flesch Formula to determine grade level. The findings of this content analysis were in accordance with the author's hypothesis. In analyzing the 1985 edition of *The Dallas Morning News* the average grade level of 15 different stories during the week of January 9-15 was 10.4. For the 1990 print edition of *The Dallas Morning News* for the week of January 9-15, the average grade was 11.33. For the 1995 print edition of *The Dallas Morning News* for the week of January 9-15, the average grade level was 10.6. For the 2000 print edition of *The Dallas Morning News* for the week of January 10-16, the average grade level was 9.07. The grade level of the 2000 edition was lower than the 1985 edition. However, between 1985 and 2000 there was a rise in the grade level during 1990 and 1995 and then a large drop in 2000.

Table 2-1

1/9/85- 1/15/85

Date	Story	grade level	
1/9/85	1A	10	
1/9/85	2A	13	
1/9/85	3A	10	
1/10/85	1B	13	
1/10/85	2B	7	
1/10/85	3B	10	
1/11/85	1C	6	
1/11/85	2C	7	
1/11/85	3C	14	
1/14/85	1D	11	
1/14/85	2D	12	
1/14/85	3D	11	
1/15/85	1E	15	
1/15/85	2E	10	
1/15/85	3E	7	
	mean	10.4	

Table 2-2

1/9/90- 1/15/90

Date	Story	grade level	
1/9/90	1A	10	
1/9/90	2A	12	
1/9/90	3A	7	
1/10/90	1B	14	
1/10/90	2B	13	
1/10/90	3B	10	
1/11/90	1C	9	
1/11/90	2C	13	
1/11/90	3C	13	
1/12/90	1D	10	
1/12/90	2D	13	
1/12/90	3D	14	

1/15/90	1E	12
1/15/90	2E	13
1/15/90	3E	7
	mean	11.33

Table 2-3

1/9/95- 1/13/95

Date	Story	grade level
1/9/95	1A	10
1/9/95	2A	9
1/9/95	3A	6
1/10/95	1B	10
1/10/95	2B	13
1/10/95	3B	10
1/11/95	1C	13
1/11/95	2C	10
1/11/95	3C	8
1/12/95	1D	9
1/12/95	2D	12
1/12/95	3D	9
1/13/95	1E	12
1/13/95	2E	16
1/13/95	3E	12
	mean	10.6

Table 2-4

1/10/00- 1/14/00

Date	Story	grade level
1/10/00	1A	11
1/10/00	2A	11
1/10/00	3A	8
1/11/00	1B	10
1/11/00	2B	8
1/11/00	3B	8
1/12/00	1C	8
1/12/00	2C	7

1/12/00	3C	10
1/13/00	1D	8
1/13/00	2D	10
1/13/00	3D	8
1/14/00	1E	5
1/14/00	2E	13
1/14/00	3E	11
	mean	9.067

A story in the 1985 edition of The Dallas Morning News described 110 potential hazards identified at a nuclear plant. The story used many heavy-handed technical terms bringing the grade level of the story up to 13. However, in the 2000 a similarly technical story on the U.S. population growth and environmental factors was only ranked at the eighth grade level.

The decrease in grade level of the stories in the 2000 editions can be attributed to society's desire for easy-to-read narratives. The Internet gives the reader smaller words which newspapers must then also provide. With shorter sentences and a simpler vocabulary, news is more comprehensible to the masses. Where originally, reading the news was an activity for the elite and educated, the media has, through the Internet and Internet-styled newspapers, become accessible to all.

The web and print papers show a difference in writing style. This is an example of the new media so many

journalists are becoming a part of. For most newspapers, shovelware is the bane of their online existence, but some are making grand attempts to create original content for the web, forcing journalists to learn a new style of writing. Newspapers that cannot afford to maintain separate newsrooms for their online and print editions are taking a new approach. At the *Times Record News* in Wichita Falls, Texas, reporters are now required to submit two versions of each story they produce—one for the print edition, the other for their Web site. New media manager Kirk Kirkham describes the difference between the two versions:

The web stories typically are no more than five to six paragraphs long, and reporters are encouraged to use bulleted lists whenever possible. Key words are also highlighted, all in order to help Web readers who may be scanning stories more so than reading them to absorb the content more easily (Outing, 1999).

Shovelware

As online newspapers pop up by the dozens each year, many are no more than print counterparts pasted into a web browser. In a hurry to get online many newspapers do not have the time or resources to provide original web content. However, some of the larger newspapers do have entire newsrooms devoted to online media, and many other papers

will soon follow suit. But, the online newspaper of the day is two-thirds shovelware with a few fresh wire stories thrown in.

John Pavlik describes the three stages of online media content. News media content on the Internet has been evolving in three stages. In stage one, which still dominates most news sites, online journalists mostly repurpose content from their mothership. In stage two, which characterizes most of the better news sites, the journalists create original content and augment it with such additives as hyperlinks, interactive features such as search engines, and a degree of customization. *The Dallas Morning News* can be considered a stage two paper. Stage three is just beginning to emerge at a handful of sites. It is characterized by original news content designed specifically for the Web as a new medium of communication. The *LA Times*, *Washington Post*, *New York Times* and *Wall Street Journal* all have stage three sites. Stage three will be characterized by a willingness to rethink the nature of "community online" and, most important, a willingness to experiment with new forms of storytelling (Pavlik, 1997, 36).

The *Dallas Morning News* can be characterized as a stage two online newspaper. About two-thirds of the top stories

are shovelware, and about half of what isn't shovelware is wire copy.

For this analysis three weeks of the online *Morning News* were analyzed for shovelware. The top stories of the online version were compared to the top stories of the print version to see how much was scooped from the print paper. For the week of Jan. 10, 2000, 60 percent of the stories online were shovelware taken word for word from the print counterpart. Of those stories that were not shovelware 50 percent were stories taken straight off the wire. For the week of Jan. 24, 2000, 58 percent of the stories were shovelware, and 42 percent of those stories that were not shovelware were wire stories. For the week of March 20, 2000, 64 percent of the stories were shovelware, and 10 percent of those stories that were not shovelware were wire stories.

Table 3-1

Date	# articles	shovelware	wire
1/10/00		4	4
1/11/00		5	3
1/12/00		6	0
1/13/00		9	6
1/14/00		8	6
percentage		60%	50%
1/24/00		6	3
1/25/00		6	5

1/26/00	9	3	3
1/27/00	7	4	0
1/28/00	7	5	0
percentage		58%	42%
3/20/00	7	3	2
3/21/00	6	4	0
3/22/00	6	4	0
3/23/00	9	7	0
3/24/00	9	6	0
percentage		64%	10%

Some of the results of these weeks may be skewed by several major breaking local events during those three weeks. It is believed that the percentages of shovelware would have been much higher if it had not been for these occurrences.

For example on Jan. 11, the online edition broke the story of Dallas Cowboys Coach Chan Gailey's firing. The next day the entire front page was an interactive site about the firing. There was a story, an audio recording and news footage, plus a survey for readers to weigh in with their opinion. On this day, the online edition did not run any shovelware.

The week of March 20 featured unfortunate news, three shootings and the capture of another shooter in the short period of five days. The online edition broke many of these stories. A change from when editors feared using breaking

news on their web sites for fear of competition with their print version. During this week an Irving man killed five people in a car wash shooting. The online site led the paper by a day in reporting the unfolding of the story. On March 23 a man was slain in the early morning hours outside of a Plano Jack-in-the-Box. The story was too late to make the print edition so it broke online. And finally on March 24, the *Morning News* ran an interactive bonanza on the Oscars. Readers could take an Oscars quiz or compare fashions from last year. However, the print edition did try to compete with an entire movies special section focusing on the Oscars.

The Dallas Morning News still has a ways to go in becoming a completely original news site. Many large newspapers are headed in this direction. The *Chicago Tribune* is one of the few papers with reporters devoted exclusively to its online version. Staffers cover stories, take pictures, operate video cameras and create digital pages. Journalists must be literate in a wide range of skills, becoming Renaissance journalists. *Tribune* reporter Cornelia Gruman describes covering an event in the age of new media. "You have four things slung over your shoulder. I had to run to Federal Express at 6:45 p.m. everyday to ship the tapes. When they got them in Chicago, they said there was too much

movement and too many zooms. It was just a comedy of errors” (Harper, 1996, p. 28). The era of digital specialization is expected to come soon where a reporter writes and a photographer shoots, but until then journalists must be a jack-of-all-trades.

The *Tribune* Internet edition contains most of the information from the print edition— news, sports, job listings, real estate and automobile advertisements. However, the Internet edition offers in-depth stories, special technology reports, games, discussion groups and everything someone would want to know about the Chicago Bears (p. 26).

Tribune editor Mitch Gentry sums up the influence of the new media. “Those closest to the electronic product realize the medium must win converts both readers and fellow journalists. This medium is in its infancy. There are thousands of ways to do things. We just have to figure them out and convince people we’re right” (p. 29).

The Poynter Institute of Media Studies has taken interest in the topic of shovelware and its effect on the new media. Poynter Fellow Michelle Jackson of Florida State University conducted a survey of the managers of online newspapers. She found that only 20 percent of the respondents said reporters contribute special material to

the web site; 31 percent said newsroom editors who work on the print paper also have some editorial responsibility for the web site; and only 23 percent said photojournalists or graphics designers contribute special material to the web (Paul, 1998).

Nora Paul, also of the Poynter Institute, offered some advice on how to make the transition. Newspapers need to rethink reporting, retrain employees and recycle information. Paul complains about the excessive use of shovelware on online sites:

Too many electronic news products are simply shovelware-scooping up the old flat text used in the ink on paper product and throwing it on the screen. We have to rethink reporting as a layering of news. News reporting for new products will have content with depth, not just by providing explanation (as has always been the reporter's strength) but by providing links to other relevant documents. Finding these relevant documents and providing links within the text of the story will be part of the reporter's job (or, perhaps, will be the job of a whole new category of worker in the interactive products newsroom) (Paul, 1998).

Story Packaging

Another example of the constant dialogue between newspapers and online papers is story packaging. The print papers are stealing the packaging style from the computer screens. Instead of offering a package containing text, sound clips and video, the print version will have text, photos, graphics and a sidebar or two. It is the newspapers trying to keep up with what can be found online and borrowing from a more "leisurely" magazine style of huge, prepackaged stories á la *Time* or *Newsweek*.

The researcher conducted a brief informal analysis of story packaging in The Dallas Morning News during the week March 20-24, 2000. During the week three large story packages were counted. The first package focused on the car wash killings that week. This same story was covered extensively in the online edition. The online edition usually staying one day ahead of the print counterpart on this story. The print package contained two stories, a mug shot and a large front page photo.

The second story package was a feature on colleges turning to online courses. This feature was the first of three-part series and contains one photo, a story and a sidebar. For the grand finale of the week The Dallas Morning News produced an Oscar bonanza. An entire section devoted to

the movies and the Oscars with an abundance of photos, infographics, columns and a survey. Of course the online edition was not to be beat. They showed a special link to an A.H. Belo Academy Awards interactive web page with quizzes, fashions and nominees.

And most recently, the Dallas/Fort Worth area was hit with a rash of storms including a devastating tornado in downtown Fort Worth. The next morning *The Dallas Morning News* ran thorough coverage of the storm in its print edition and an entire story package online. The online version had the most extensive coverage following the event, but on day two, the print version came out with an entire section dedicated to coverage of the storm.

DISCUSSION

Looking at the dialogue between newspapers and their online counterparts, specifically *The Dallas Morning News* in a quantitative manner, gave the clearest idea of the relationship between the two media. Measuring story length in the print *Morning News* during a 15-year period illustrated how newspapers must supply the reader with the same kind of in-depth information that can be found online. Analyzing readability in print sources gives an idea of how the newspapers are adapting some of the online style. Studying the amount of shovelware online proved to be the

most useful analysis. It was a good indicator of where newspapers stand in developing original content for the web. The use of story packaging was just another indicator of how print is stealing from the web. All of the analyses provided a good indication of how print sources and online news sources borrow from each other.

This relationship has been established through an exploration of the roots of hypertext, a trip through mass media memory lane and a content analysis of the structures in both print and online news.

While many hypertext theorists predicted a new non-linear form of narrative online, this has not been the case in news reporting. Stories on the web are still written in the same inverted pyramid style so familiar to journalism students. This structure has become even more important as web users skim the news. The most important information has to be at the top of the page. Readers do not read much further down the page, and they rarely scroll.

Throughout media history many have feared the end of the newspaper. First radio was going to kill it, then television and now the Internet. Because of the working relationship between newspapers and their online cousins, newspapers will not go away. Newspapers will find their niche of providing details and attracting a particular

audience that will hold their place. And, newspapers hold time. At this time there is no formal way of archiving and storing Internet content. We can only anticipate what new form of media will come next. Fifty years ago, who would have predicted the Internet? The only examples of media that will remain decades later are printed products. There may be no VCRs to play back television clips and no computers compatible with CD-ROM to view Internet archives. The only medium that can provide any kind of archiving will be the newspapers with its ink-staining text and black-and-white still photos.

Online media will also find its niche most likely by developing into news portals that act as a kind of information clearinghouse, a one-stop shop for everything you need to know. Many sites such as Yahoo and MSN are already doing this. I predict that we will see local sites that mimic this format. Media conglomerates such as A.H. Belo will use all of their resources combined to deliver one online product. Instead of one site for The Dallas Morning News, one site for WFAA-TV and one site for Texas Cable News we will have an A.H. Belo site or a Dallas site combining stories from the *Morning News* and video coverage from WFAA and TCN.

Because of the variety of media and the tie between print and online, journalists will have to be well-versed in a variety of skills. It will not be good enough to report and write. New media requires that journalists can shoot photos and film, write and update the paper's web page. The days of separate newsrooms for online media may be numbered. In a move to efficiency newspapers will develop integrated newsrooms where the staff works together to put out a print and online product. "Report once; write twice." Eventually, the online newsroom will return to specializations where a writer writes and a photographer shoots. And even then a whole new form of narrative style for the Internet may be developed with its own unique rules and vocabulary. Just as writing for television news is different than writing for newspapers, Internet narrative will evolve into its own. But, until then journalists must learn the skills necessary to compete in new media.

In conclusion, the results of this study indicated a dialogue between print and online media through longer stories, a lower average grade level, excessive use of shovelware and an increase in story packaging.

Story length has increased in *The Dallas Morning News* over the last 15 years. This is partially due to the increased coverage of news online media can offer. Their

coverage is only limited by what the reader will read. In 1985 the average story length was 116.93 lines; in 1990 the story length increased to 147.2 lines and in 1995 to 192.8 lines. The large jump between 1990 and 1995 can be attributed to two factors: the explosion of the Internet in 1992 and an unusually long feature story published during the week analyzed. In the year 2000 the average story length was 166.27 lines, an increase of almost 50 lines from 1985.

Readability of the stories has also increased during the same 15-year time period. In 1985 the average grade level of the top stories in *The Dallas Morning News* was 10.4. By 2000 the number had dropped to 9.07. A technical story about a chemical company in 1985 had a grade level of 13, but in 2000 an equally technical story on the environment was written at the eighth-grade level. A lower grade level in print news stories is reflective of what can be found online. The web demands a new style of writing.

Probably the most indicative study of the dialogue between print and online media is the shovelware analysis. Online media is still in its infancy and what is found online is often just a pixelized copy of the print paper. In the online version of *The Dallas Morning News* 61 percent of the stories could be considered shovelware. Of the stories that were not shovelware, 34 percent were wire stories.

These percentages may be somewhat low. During the analysis the coach of the Dallas Cowboys was fired and an Irving man shot five people at a local car wash. Both of these stories broke online, and a significant amount of original web content was dedicated to these stories. *The Dallas Morning News* is at stage two in its progression to all original web content. In further dialogue between the two media, story packaging was rampant in both media. Online story packages consist of a combination of text, photo, audio, video and interactive chats. Offline packages include text, photos, graphics and surveys. The two media compete and work together to give the most comprehensive coverage. Online media and newspapers have perhaps the closest relationship. The web is still significantly text-based and the newspaper complements this style.

This study has focused on one portion of the relationship between print and online media. A much greater picture exists and more changes will come. Will we see the end of printed media? It is doubtful, but we have definitely seen a change in media that is irreversible. While we can attempt to predict the complete changes that Internet and technology have brought to the media, only time will reveal the total impact. And, as soon as we adjust to the Internet another new technology may come along.

Further analysis could include: a) comparing hits on a newspaper's site to the amount of shovelware on that site; b) measuring how many newspapers have integrated newsrooms and how many provide separate newsrooms for their online staffs. c) studying media conglomerates who have merged their sites. It would be interesting to revisit this same analysis in another 15 years. We may see these same changes in a whole new light. Who knows, maybe may not even be an Internet, or it may have evolved beyond recognition.

The changes this means for journalists is of the most interest. Journalists will have to become Renaissance journalists, learning not just how to write, but to put together text, photos, sound and video into a concise complete piece. This is the changing nature of media.

BIBLIOGRAPHY AND REFERENCES

Aarseth, Espen J. (1997). *Cybertext: Perspectives on Ergodic Text*. Baltimore: The Johns Hopkins University Press.

Adoni, Hanna. (1995 Spring). Literacy and Reading in a MultiMedia Environment. *Journal of Communication*, 2, 152-173.

Anderson, Ronald C. (1979). *Circulation Management Ideas*. New York: Gannett Rochester Newspapers.

Attlesey, Sam. (2000 January 14). Gore has big lead over Bradley in Texas, poll finds. *The Dallas Morning News*, pp. 1A, 16A.

Barrett, Edward., Redmond, Marie. (1995). *Contextual Media: Multimedia and Interpretation*. Cambridge: The MIT Press.

Barthes, Roland. (1979). Authors and Writers. In Susan Sontag. Editor, *A Barthes Reader* (pp.185-93). New York: Hill and Wang.

Barthes, Roland. (1974). *S/Z*. Richard Miller, Translator. New York: Hill and Wang.

Baudrillard, Jean. (1983) *Simulations*. New York: Semiotext(e) Inc.

Becker, Elizabeth. (2000 January 10). U.S. military stressed, wary, survey shows. *The Dallas Morning News*, pp. 1A, 6A.

Beil, Laura. (2000 January 14). Gay minorities bearing brunt of AIDS cases. *The Dallas Morning News*, pp. 1A, 16A.

Bernhardt, Stephen A. (1993 May). The Shape of Text to Come: The Texture of Print on Screens. *College Composition and Communication*, 44, 151-175.

Birkerts, Sven. (1994). *The Gutenberg Elegies: The Fate of Reading in an Electronic Age*. Boston: Faber & Faber.

Blackistone, Kevin. (1990 January 9). Banks lower prime rate to 10 percent. *The Dallas Morning News*, pp. 1A, 4A.

Bogart, Leo. (1975 Autumn). How the Challenge of Television News Affects the Prosperity of Daily Newspapers. *Journalism Quarterly*, 403-10.

Bolter, J. David. (1989). Beyond Word Processing: The Computer as a New Writing Space. *Language & Communication*, 9, 129-142.

Bolter, J. David. (1990). *Writing Space: The Computer in the History of Literacy*. Hillsdale, NJ.: Lawrence Erlbaum.

Bolter, J. David., Grusin, Richard. (1999). *Remediation: Understanding New Media*. Cambridge: The MIT Press.

Brauer, David. (1990 January 13). Daughter of Malcolm X accused of murder plot. *The Dallas Morning News*, pp. 1A, 6A.

Brown, Chip. (1999 June). The State of the American Newspaper. *American Journalism Review*, pp. 50-71.

California State University, Northridge. (2000 May 5). Flesch Formula Needs Attention. *Readability Helps the Level*. Available:<http://www.csun.edu/~vcecn006/read1.htm>.

Calvino, Italo. (1979). *Invisible Cities*. New York: Picador.

Chatman, Seymour. (1978) *Story and Discourse: Narrative Structure in Fiction and Film*. Ithaca: Cornell University Press.

Conklin, Jeffrey. (1990). Hypertext, Full Text and Automatic Linking. *SIGIR 90*, 94-104. Providence, R.I. Institute for Research in Information and Scholarship.

Coover, Robert. (1993, August 29). Hyperfiction: Novels for the Computer. *New York Times Book Review*, 33D-34D.

Coover, Robert. (1992, June 21). The End of Books. *New York Times Book Review*, 28D.

Decherd, Robert W. (2000 April 29). *Localism: The Transformation into New Media*.

Derrida, Jacques. (1976). *Of Grammatology*. Baltimore: The Johns Hopkins University Press.

Derrida, Jacques. (1981). *La Dissemination*. Barbara Johnson, Translator. Chicago: University of Chicago Press.

Diebert, Ronald J. (1997). *Parchment, Printing, and Hypermedia: Communication in World Order Transformation*. New York: Columbia University Press.

Dertouzos, Michael. (1967). *What Will Be: How the World Of Information Will Change Our Lives*. New York: Harper Edge.

Dodge, Robert. (1995 January 9). Tough fight predicted on balanced-budget bid. *The Dallas Morning News*, pp. 1A, 6A.

Douglas, J. Yellowlees. (1994). How Do I Stop This Thing? Closure and Indeterminacy in Interactive Narratives. In George Landow. Editor. *Hyper/Text/Theory* (pp. 159-88). Baltimore: The Johns Hopkins University Press.

Eco, Umberto. (1986). *Travels in Hyperreality*. Orlando, FL: Harcourt Brace Jovanovich.

Edgar, Mark. (1985 January 14). Kidnap victims rescued. *The Dallas Morning News*, pp. 1A, 5A.

Egerton, Brooks. (2000 January 10). Texas set for debate on same-sex unions. *The Dallas Morning News*, pp. 1A, 6A.

Gesalman, Anne. (1990 January 12). City Oks anti-bias gay policy. *The Dallas Morning News*, pp. 1A, 18A.

Gibson, William. (1983). *Neuromancer*. New York: Ace Books.

Giffard, C. Anthony. (1980 Summer). The Impact of Television on South African Daily Newspapers. *Journalism Quarterly*, 216-223.

Gladney, George A. (1994 Spring). Does TV Competition Lead to USA Today-Style Innovation? *Newspaper Research Journal*, 25-33.

Gleick, James. (1999). *Faster: The Acceleration of Just About Everything*. New York: Pantheon Books.

Goldstein, Alan. (2000 January 11). AOL to buy Time Warner for \$178 billion. *The Dallas Morning News*, pp. 1A, 10A.

Goldstein, Steve. (1990 January 12). Gorbachev flexible on secession. *The Dallas Morning News*, pp. 1A, 8A.

Gosselin, Rick. (2000 January 31). Rams hold off Titans for title. *The Dallas Morning News*. Available: http://dallasnews.com/sports_day/football/cowboys/nfl/24575_31superlede.html.

Gordon, Pat. (1985 January 11). Task force to probe FW disappearances. *The Dallas Morning News*, pp. 1A, 9A.

Gordon, Pat. (1985 January 15). Ex-mental patient jailed in FW woman's slaying. *The Dallas Morning News*, pp. 1A.

Greenberg, Mark L., Schachterle, Lance. (1992). *Literature and Technology*. London: Associated University Presses.

Hancock, Lee. (1990 January 10). Dispensing justice, wit. *The Dallas Morning News*, pp. 1A, 4A.

Hancock, Lee. (2000 January 31). Special counsel uses polygraph on Waco commando. *The Dallas Morning News*. Available:http://dallasnews.com/texas_southwest/24560_WACO31.html.

Hanners, David. (1985 January 14). Girl, 13, freed in East Texas; five arrested. *The Dallas Morning News*, pp. 1A, 8A.

Harper, Christopher. (1997 November). Doing It All. *Columbia Journalism Review*, pp. 24-25.

Heise, Ursula. (1997). *Chronoschisms: Time, Narrative and Postmodernism*. Cambridge: Cambridge University Press, 1997.

Hicks, Victoria Loe. (2000 January 11). Report says bonfire ropes removed. *The Dallas Morning News*, pp. 1A, 10A.

Hillman, G. Robert. (1985 January 11). White wants quick review of water plan. *The Dallas Morning News*, pp. 1A, 9A.

Hoppe, Christy. (1990 January 11). Mattox asks court to halt judge vote. *The Dallas Morning News*, pp. 1A, 12A.

Hoppe, Christy. (1995 January 10). Legislature sees change, but slowly. *The Dallas Morning News*, pp. 1A, 10A.

Inkien, Sam. (1999). *Mediapolis: Aspects of Texts, Hypertexts and Multimedial Communication*. Berlin: Walter de Gruyter.

Israel approves 3-stage pullout from Lebanon. (1985 January 15). *The Dallas Morning News*, pp. 1A.

Johnson, Thomas J. (1998 Summer). Cruising is Believing? Comparing Internet and Traditional Sources on Media Credibility Measures. *Journalism & Mass Communication Quarterly*, 75, 325-335.

Johnston, Carla Brooks. (1998). *Global News Access: The Impact of New Communications Technologies*. London: Praeger.

Jonassen, David H. (1989). *Hypertext/Hypermedia*. New Jersey: Educational Technology Publications.

Joyce, Michael. (1995). *Of Two Minds: Hypertext Pedagogy and Poetics*. Ann Arbor: the University of Michigan Press.

Kahn, Paul. (1993). Linking Together Books: Experiments in Adapting Published Material Into Intermedia Documents. *Hypermedia*, 1, 111-145.

Katz, William A. (1996). *Introduction to Reference Work: Basic Information Sources*. New York: McGraw Hill College.

Kelley, Chris. (1990 January 11). Ad firm reportedly failed to pay Dart. *The Dallas Morning News*, pp. 1A, 10A.

Kerr, Stephen T. (1986 Autumn). Instructional Text: The Transition from Page to Screen. *Visible Language*, XX, 368-392.

Kesler, Barbara. (1995 January 19). Sign of the crimes. *The Dallas Morning News*, pp. 1A, 18A.

Kimber, Stephen. (1997). The Message is (Still) the Medium: The Newspaper in the Age of Cyberspace. *Information Processing & Management*, 33, 595-597.

Kingery, David., Furuta, Richard. (1997). Skimming Electronic Newspaper Headlines: A Study of Typeface, Point Size, Screen Resolution and Monitor Size. *Information Processing & Management*, 33, 685-695.

Kirsner, Scott. (1997 November). The Breaking News Dilemma. *Columbia Journalism Review*, pp. 18-19.

LaGessee, David. (1990 January 13). Clinton, top lawmakers agree on aid for Mexico. *The Dallas Morning News*, pp. 1A, 16A.

LaGessee, David. (1995 January 10). GOP may drop plan to cut benefits of illegal immigrants. *The Dallas Morning News*, pp. 1A, 7A.

LaGessee, David. (2000 January 13). Reno calls boy's case a federal issue. *The Dallas Morning News*, pp. 1A, 20A.

Landers, Jim. (1985 January 10). 110 potential hazards identified at N-plant. *The Dallas Morning News*, pp. 1A.

Landers, Jim. (1985 January 10). Hodel expected to take new post. *The Dallas Morning News*, pp. 1A, 11A.

Landow, George P. (1992). *Hypertext*. Baltimore: The Johns Hopkins University Press.

Landow, George P. (1993). *The Digital Word: Text-Based Computing in the Humanities*. Cambridge: The MIT Press.

Lanham, Richard A. (1993). *The Electronic Word*. Chicago: The University of Chicago Press.

Lasica, J.D. (1996 November). Net Gain. *American Journalism Review*, pp. 20-37.

Lasica, J.D. (1997 October). Get It Fast, But Get It Right. *American Journalism Review*, p. 64.

Lasica, J.D. (1998 May). Keeping Online Staffers in Exile. *American Journalism Review*, p. 72.

Lasica, J.D. (1999 January) Time to Freshen Up Online Newspapers. *American Journalism Review*, p. 48.

Ledbetter, James. (1999 November). Some Pitfalls in Portals. *Columbia Journalism Review*, pp. 22-23.

Leubsdorf, Carl P. (1985 January 9). Reagan Warm to Senate Effort to Cut Deficits. *The Dallas Morning News*, pp. 1A, 11A.

Leubsdorf, Carl P. (1985 January 10). Reagan says he hopes for 'more stable peace.' *The Dallas Morning News*, pp. 1A, 17A.

Leubsdorf, Carl P. (1985 January 11). Reagan staff changes may hurt, officials say. *The Dallas Morning News*, pp. 1A, 10A.

Leubsdorf, Carl P. (2000 February 1). Democrats hand Gore victory. *The Dallas Morning News*. Available: http://dallasnews.com/campaign/25390_NHAMPDEM02.html.

Li, Xigen. (1998 Summer). Web Page Design and Graphic Use of Three U.S. Newspapers. *Journalism & Mass Communication Quarterly*, 75, 352-363.

Lunsford, J. Lynn. (2000 January 12). Dispatcher urged jet to try to outrun storms. *The Dallas Morning News*, pp. 1A, 21A.

Lunsford, J. Lynn. (2000 February 2). Pilots struggled with controls for 11 minutes before crash. *The Dallas Morning News*. Available: http://dallasnews.com/national/25381_CRASH02.html.

Lunsford, J. Lynn. (2000 February 4). Jet plunged into sea upside down, tape shows. *The Dallas Morning News*. Available: http://dallasnews.com/national/26541_CRASH04.html.

Maherzi, Lotfi. (1997). *World Communication Report: The Media and the Challenge of the New Technologies*. Paris: Unesco Publishing.

Martin, Wallace. (1986). *Recent Theories of Narrative*. Ithaca, NY: Cornell University Press.

McKenna, Kate. (1993 October). The Future is Now. *American Journalism Review*, pp. 16-22.

McLemore, David. (1985 January 14). S. Texas digs out after snow. *The Dallas Morning News*, pp. 1A.

McLuhan, Marshall, Fiore, Quentin. (1967). *The Medium is the Massage: An Inventory of Effects*. New York: Random House.

McLuhan, Marshall. (1969). *The Gutenberg Galaxy: The Making of a Typographic Man*. New York: New American Library.

McLuhan, Marshall. (1997). Michael A. Moos, Editor. *Marshall McLuhan Essays: Media Research Technology, Art, Communication*. Amsterdam: G&B Arts.

Meadow, Charles T. (1998). *Ink Into Bits: A Web of Converging Meadow*. London: The Scarecrow Press, Inc.

Menzer, Katie. (2000 January 31). Operation Rescue verdict upheld.. *The Dallas Morning News*. Available: http://dallasnews.com/metro/24680_ABORTION31.html.

Meyer, Erik. (2000 April 30). An Unexpectedly Wider Web for the World's Newspapers. *AJR NewsLink*. Available: <http://ajr.newslink.org/emcol10.html>.

Michaels, Dave. (2000 February 2). Officer confirms meeting with Lipscomb, bar owner over alleged police harassment. *The Dallas Morning News*. Available: http://dallasnews.com/metro/25645_bar02.html.

Moore, David. (2000 January 12). Cowboys show Gailey the door. *The Dallas Morning News*, pp. 1A, 10A.

Moreno, Sylvia. (1995 January 11). New Legislature convenes. *The Dallas Morning News*, pp. 1A, 18A.

Murray, Janet H. (1991) Anatomy of a New Medium: Literacy and Pedagogic Uses of Advanced Linguistic Computer Structures. *Computers and the Humanities*, 25, 1-14.

Murray, Janet H. (1997). *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: The Free Press.

Nielsen, Jakob. (1990). *Hypertext and Hypermedia*. Boston: Academic Press, Inc.

Niesz, Anthony J., Holland, Norman N. (1984 September). Interactive Fiction. *Critical Inquiry*, 11, 110-128.

Noble, Jayne. (1995 January 9). Cowboys put Packers away. *The Dallas Morning News*, pp. 1A, 6A.

Noxon, Dan. (1990 January 12). Players expected to ratify plan to end lockout. *The Dallas Morning News*, pp. 1A, 10A.

Outing, Steve. (1999 July 14). Repoet Once, Write Twice-For Print and Web. *Online News Industry News & Analysis*.

Ong, Walter J. (1982). *Orality and Literacy: The Technologizing of the Word*. London: Methuen.

Palahniuk, Chuck. (1999). *Invisible Monsters*. New York: W.W. Norton and Co.

Palahniuk, Chuck. (1999). *Survivor: A Novel*. New York: W.W. Norton and Co.

Patten, David A. (1986). *Newspapers and New Media*. New York: Knowledge Industry Publications, Inc.

Paul, Nora. (2000 March 11). Integrating Old and New Media Newsrooms. Available:
http://poynter.org/research/nm/nm_integrate.htm.

Paul, Nora. (2000 March 11). Integrating Old and New Media Newsrooms. Available:
http://poynter.org/research/nm/nm_revision.htm.

Paulson, William R. (1988). *The Noise of Culture, Literary Texts in a World of Information*. Ithaca: Cornell University Press.

Pavlik, John V. (1997 July/August). The Future of Online Journalism. *Columbia Journalism Review*, pp. 30-33.

Pavlik, John V. (1998). *New Media Technology: Cultural and Commercial Perspectives*. Boston: Allyn and Bacon.

Pringle, Paul. (2000 February 1). Jet with 88 aboard crashes off LA. *The Dallas Morning News*. Available: http://dallasnews.com/national/24917_01crash.html.

Rangel, Enrique. (1995 January 11). Mexican stocks fall as crisis deepens. *The Dallas Morning News*, pp. 1A, 9A.

Real, David. (1990 January 9). Nuclear plant to be declared operable Jan. 22, utility says. *The Dallas Morning News*, pp. 1A, 4A.

Reider, Rem. (1997 April). A Breakthrough in Cyberspace: The Dallas Morning News uses the new medium as a news medium. *American Journalism Review*, p. 6.

Reifenberg, Anne. (1990 January 9). Basic skills of U.S. pupils called appalling. *The Dallas Morning News*, pp. 1A, 7A.

Robinson, John P. (1979 September). The Changing Role of Newspapers in the Age of Television. *Journalism Monographs*, 37-45.

Saarela, Jane., Turpeinen, Marko., Puskala, Tuomas., Korkea, Mari., Sulonen, Reijo. (1997). Logical Structure of a Hypermedia Newspaper. *Information Processing & Management*, 33, 599-613.

Saul, Michael. (2000 January 11). Lipscomb jury selection begins today. *The Dallas Morning News*, pp. 1A, 8A.

Saul, Michael. (2000 February 3). Lipscomb resigns from City Council. *The Dallas Morning News*. Available: http://dallasnews.com/metro/26291_lipscomb3.html.

Saul, Michael. (2000 February 4). Lipscomb exits political stage. *The Dallas Morning News*. Available: http://dallasnews.com/metro/26682_LIPSCOMBMA04.html.

Shine, Dan. (1990 January 15). 80 hours in limbo. *The Dallas Morning News*, pp. 1A, 4A.

- Sickles, Jason. (2000 January 13). FW Police Chief Windham dies. *The Dallas Morning News*, pp. 1A, 20A.
- Slater, Wayne. (1985 January 15). Heart attack kills ex-Gov. Shivers. *The Dallas Morning News*, pp. 1A, 4A.
- Slater, Wayne. (1990 January 10). Legislature to deal with judges, schools. *The Dallas Morning News*, pp. 1A, 10A.
- Slater, Wayne. (2000 February 1). McCain scores big win over Bush in NH. *The Dallas Morning News*. Available: http://dallasnews.com/campaign/25393_NHAMPGOP02.html.
- Slater, Wayne. (2000 February 3). Bush goes on offensive after NH loss. *The Dallas Morning News*. Available:http://dallasnews.com/campaign/26163_GOP03.html.
- Slover, Pete. (2000 January 14). Firm in oil spill suit to pay record fine. *The Dallas Morning News*, pp. 1A, 16A.
- Stein, Marc. (2000 February 4). Mavericks sign Rodman; debut set for Wednesday. *The Dallas Morning News*. Available:http://dallasnews.com/mavs/26510_04rodman.html.
- Stutz, Terrence. (1990 January 13). Insurance changes adopted. *The Dallas Morning News*, pp. 1A, 7A.
- Swardson, Anne. (1985 January 9). Regan and Baker to Swap Positions. *The Dallas Morning News*, p. 1A, 11A.
- Sundar, S. Shyam. (1998). Effect of Source Attribution on Perception of Online News Stories. *Journalism & Mass Communication Quarterly*, 75, 55-65.
- Tabbi, Joseph, Wutz, Michael. (1997). *Reading Matters*. Ithaca: Cornell University Press.
- Taylor, Jean-Jacques. (2000 January 12). Team faces challenge in finding successor who fits system. *The Dallas Morning News*, pp. 1A, 10A.
- Taylor, Michael Ray. (1998 February). Write for the Web and Sell. *Writer's Digest*, pp. 18-24.
- Trejo, Frank. (1995 January 11). Time to act. *The Dallas Morning News*, pp. 1A, 18A.

Truitt, Rosalind. (1998 October). Online Circle Time. *Presstime*, 48-53.

Ullman, Ellen. (1997). *Close to the Machine: Technophilia and its Discontents*. San Francisco: City Lights Books.

U.S. and Soviet Union Agree to New Arms Talks. (1985 January 9). *The Dallas Morning News*, pp. 1A, 12A.

Vela, Edward. (1990 January 15). SCLC vows to step up pressure. *The Dallas Morning News*, pp. 1A, 10A.

Winston, Brian. (1998). *Media Technology and Society, A History: From the Telegraph to the Internet*. London: Routledge.

Witman, Drake. (2000 January 10). Child killer recaptured in E. Dallas. *The Dallas Morning News*, pp. 1A, 9A.

Wittig, Rob. (1994). *Invisible Rendezvous*. Hanover: Wesleyan Press.

Wrolstad, Mark. (2000 January 13). U.S. population projected to double in next century. *The Dallas Morning News*, pp. 1A, 10A.

Yearwood, John. (1990 January 9). Major crime fell in 1989. *The Dallas Morning News*, pp. 1A, 8A.

Young, Lawrence. (1990 January 12). Court restores March judicial primaries. *The Dallas Morning News*, pp. 1A, 11A.