THE CABLE NEWS TICKER, VIEWER COMPREHENSION AND INFORMATION OVERLOAD: LESS IS MORE

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ABSTRACT

On September 11, 2001, cable television news outlets began presenting viewers with a continuous news ticker, or “crawl,” on the bottom portion of the television screen, a feature that continues to be employed today. This study, the most comprehensive look at the news ticker to date, presents a three-pronged approach to understanding the news ticker and its effects on viewer comprehension and retention of information delivered in the “main story” (i.e., the upper, non-ticker, portion of the television screen). The study’s main finding, derived from a viewer comprehension experiment, is that the presence of the news ticker is significantly negatively correlated with viewer comprehension of main story information. Additionally, a content analysis finds that while there are differences between the news tickers of CNN, Fox News Channel and MSNBC, these cable news outlets most often present a ticker featuring information that is unrelated to the main story. Results from a cable news viewer uses and gratifications survey suggest that most viewers watch cable news in order to become better informed, however experimental results indicate that this goal is being achieved at very low levels, with the news ticker worsening such a situation. The study interprets these findings through the lens of information overload theory, which posits that an individual presented with a large amount of disparate information at one time will have cognitive difficulties comprehending and retaining specific pieces of the information set.
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Chapter 1: Introduction

This study seeks to provide a better understanding of the uses for and effects of a relatively new feature of cable news that has, by and large, escaped scholarly scrutiny: the scrolling text banner on the bottom border of the television screen known as the news ticker, or the “crawl,” as it is termed within the industry. For the purposes of this study, the terms “ticker” and “crawl” will be used interchangeably.

Cable news channels employed a news ticker on Sept. 11, 2001. The new feature offered an anxious viewing public additional important information about the morning’s terrorist attacks. Though the exact origin of the continuous news ticker is “a minor mystery in the news world,” we do know that Fox News Network was able to place a news ticker on screen as early as 10:49 a.m. on the morning of September 11, with CNN following suit 22 minutes later and MSNBC joining the rest slightly before 2 p.m. (Sella, 2001). However, at least one—and probably all, considering the technological prerequisites for ticker presentation—cable news station was already developing a more information-laden screen presentation prior to September 11, 2001 (Rutenberg, 2001).

Though the furor of 9/11 has subsided, cable channels have transformed the ticker from a temporary tool—once used for stock information, sports scores and emergency news—into a constant feature delivering bite-sized nuggets of news and entertainment around the clock (even, on occasion, during commercial breaks). Despite the ticker’s unyielding presence on American television sets, little research has been conducted on this phenomenon (see Blackmon, et. al, 2004; Blain, 2002; Blain and Meeds, 2004). This
study will therefore be the first comprehensive, empirical analysis of the news ticker to integrate results from a viewer comprehension experiment and a content analysis with viewer uses and gratifications data. Expanding on prior research (Blackmon, et. al, 2004; Blain, 2002; Blain and Meeds, 2004), this three-pronged approach provides the most complete picture of the news ticker’s presentation, usage and effects to date.

The overarching research question this thesis addresses is: “Does the ticker on cable news channels have a positive or negative impact on viewer comprehension of the main (non-ticker) news story?” Our primary hypothesis states: “The ticker on cable news channels has a negative impact on viewer comprehension of the main (non-ticker) news story.” This study’s findings support this hypothesis.

Such a hypothesis is logical within the context of this paper’s theoretical framework, which focuses on the theory of information overload—the concept that the human brain and memory can process only a certain amount of information at a given time, and that providing more input than the brain or memory can handle may overwhelm our cognitive systems to the point at which (in the extreme) none of the new information can be retained. This theory (which is highly related to the interdisciplinary field of cybernetics) and its applicability to the ticker feature on television news are discussed at length in Chapter 2. Chapter 2 also offers a review of the literature related to the ticker and cable news in general.

Before we can address our primary research question, however, we must first turn our attention to foundational matters. If we are to consider the ticker a potential source of information overload leading to negative cognition effects in television viewers, we must
first ask whether the ticker is actually presenting new and different information or merely reinforcing the information presented within the main (non-ticker) news story. On September 11, 2001, all or nearly all of the news items presented within the tickers on cable news channels were related to the main news story; both the reporters and commentators in the main part of the television screen and the ticker at the bottom of the screen were delivering information to viewers about the morning’s terrorist attacks. In such a context, it is less likely that the ticker could be contributing to information overload since the ticker is more likely to reinforce the information already being presented in the main portion of the television screen.

Does this style, which we’ll label “reinforcement of main story,” remain the norm today, or is the ticker more likely to present viewers with information unrelated to the main story—information that may serve to compete for viewers’ attention and thereby impede a viewer’s main story comprehension level? We turn our attention to this question in Chapter 3. If the ticker primarily reinforces the main story, our theoretical framework of information overload will not be an appropriate context within which to consider the ticker. If, on the other hand, the ticker is most often unrelated to the main story, and thereby competes for viewer attention to (and comprehension of) the main story, then information overload theory may be highly applicable to an analysis of the ticker’s functions.

To address the issue of a “reinforcing” or “competing” ticker, methodology and results of a content analysis are presented in Chapter 3. While past content analyses of the ticker have valuably examined whether or not the crawl presents mostly “hard” or “soft”
news and whether an agenda-setting function can be observed within the ticker (Blackmon, et al., 2004), our content analysis will not retread this ground. Instead, we focus on whether the ticker plays a reinforcing or competing role in relation to the main news story, an important criteria that has not been examined by past studies.

Another foundational matter to consider before examining the ticker’s potential impact on viewer comprehension of the main news story is viewers’ uses for—and gratifications derived from—watching cable news programming. It is important for us to understand whether viewers are more interested in cable news for its potential to entertain, or to help them “pass the time,” than for its potential to inform them in a way that fosters lasting comprehension. That is, when we study viewer comprehension and retention of cable news information as it relates to the news ticker, are we merely studying an unintended consequence of entertainment programming, or are we studying the main promise of (and motivation for viewing) cable news? Further, how do viewers use the ticker, and how does such usage enhance or detract from their overall cable news experience? We turn to these questions in Chapter 4, exploring cable news viewer uses and gratifications via responses to an online survey. As in Chapter 3, methodology and results are presented, discussed and analyzed within the overall theoretical framework of the paper.

Once these secondary research questions have been dealt with in Chapters 3 and 4, we will move on to our primary research question in Chapter 5—whether the ticker has an impact on viewer comprehension of the main news story. An experimental design was employed to address this question. The experiment included a control group that was
exposed to approximately ten minutes of typical cable news channel programming. Our experimental group was exposed to the same programming— but with the ticker, our independent variable, digitally removed. Each group was then prompted to respond to a series of ten basic comprehension questions about the cable news stories they had just watched in the main portion of the television screen.

The number of comprehension questions respondents answered correctly served as our dependent variable. Most notable, viewer comprehension was significantly correlated to the presence or absence of the crawl. In Chapter 5, we delve into the methodology and results of this experiment. In Chapter 6, we integrate the findings of the studies presented in Chapters 3, 4 and 5 and report general conclusions. Finally, our Epilogue offers a more metatheoretical discussion of the value of the ubiquitous news ticker to U.S. news consumers and citizens in a democratic society.

Before describing the methodology and analyzing the results of the three studies that comprise the backbone of this thesis, let us consider the overall cable news picture, quite literally. This study concerns itself with the crawl, but we should not treat the crawl as if it were the only additional graphic element present on the cable television news screen. An analogy may be helpful in this regard:

Imagine yourself in an emergency room, conversing with a doctor who is describing treatment options for a serious medical condition that you are dealing with. The doctor might be telling you that you may wish to consider surgery to address the problem, and then he or she begins to outline the potential benefits and negative consequences that surgery could entail. Then, while the doctor is telling you this
information, a nurse begins talking at the same time. He or she is telling you about a new drug that has just been approved by the FDA, but you are unsure whether information about this drug will be relevant to your condition, or if you should consider using the drug. While the doctor continues to tell you about your medical options and the nurse describes the new drug, a hospital administrator enters the scene and begins repeatedly holding hospital forms before your face. The forms include the name of the hospital at which you are located, and underneath each hospital logo, you see the words, “Providing quality healthcare since 1965.”

Meanwhile, as you attempt to focus on the important medical options the doctor is presenting and the nurse and hospital administrator bombard you with other information, another patient enters the room and begins talking aloud on a cell phone about a recent stock investment. Later, after everyone leaves, you try to review what you have learned. Was the doctor recommending that you take Lipitor or was that one of the new drugs the nurse was describing to you? Was the cost of the drug you should take $19.65, or was that the year the hospital was founded? Should you take the medicine developed by Bristol-Myers Squibb, or was that just the stock that the other patient said was doing so well in the market today?

In the end, it becomes clear to you that when multiple sources of information are presenting you with unrelated matters at the same time, you have trouble focusing on and recalling even the one information presentation—the doctor’s—that you really care about. It is just this layered communication formula that cable news channels (and even some broadcast news programs) are employing on a daily basis in the U.S. In the scenario
above, the hospital administrators might legitimately claim that their institution has provided you with all the information you need to make an informed decision about your health care. In a technical sense, this is true. Nevertheless, the doctor’s important information was contaminated by the sea of noise that made the information useless to you. Similarly, cable news channels may claim to provide viewers with the information they need to become informed about the day’s news, but as this thesis argues, that information is not presented within a suitable context for retention.

It is hypothesized that even a news story that is important to a viewer may be more difficult to comprehend and retain in memory when presented on a cable news screen that is frequently shared with a ticker, a station logo, stock quotes, a lower-third banner offering provocative story titles and an upper screen split between a news anchor and video footage or an interviewee. Of course, even if our intuitive sense tells us that such an abundance of information may short-circuit our processing and comprehension capabilities, we should rely on more than intuition when making statements about media effects and information overload. Therefore, this thesis embarks on an empirical testing of these intuitive ideas within the cable news universe.

The research and findings of this thesis will be of value to different populations for different reasons. For researchers and scholars interested in media effects, this study will be a valuable exploration of the oft-hypothesized but rarely empirically tested cognitive phenomenon known as “information overload.” The study applies this concept to on-screen comprehension. Cable news producers and owners may have a different interest in the research and findings presented within. In particular, results from a uses
and gratifications survey could potentially serve as a marketing and production tool within an industry in which assorted news outlets are constantly looking for ways to distinguish themselves from the competition. Results from our uses and gratifications survey suggest at least one way in which a cable news channel might do so by appealing to specific types of cable news viewers.

Finally, the general (non-academic) public may be interested in this paper due to the fact that its research and findings carry significant implications for the quality of our media consumption choices. While uses and gratifications survey data indicate that an overwhelming percentage of cable news viewers “tune in” in order to become more informed about the day’s news items, results from a comprehension experiment indicate that this goal is being achieved at an alarmingly low rate, if at all. The general reader, then, may find that this study confronts him or her with a difficult but important question: Does one watch cable news to become informed, or does one watch cable news to feel like one is becoming informed? We shall return to this pivotal question in our final discussion. For now, we begin by reviewing the literature related to the ticker, cable news and information overload while further explicating this paper’s theoretical framework.
Chapter 2: Literature Review and Theoretical Framework

We begin our investigation of the cable news ticker with the understanding that television news matters. After surpassing newspapers as the most used news source in 1963, television news remains a dominant force; even though viewership has begun to fragment and decline for broadcast news, cable news’ viewership has increased in recent years (Ray, 1999, citing Roper statistics; Project for Excellence in Journalism, 2006). Cable news entered the television news orbit when CNN launched the first 24-hour news channel in 1980; Fox News Channel and MSNBC added to the mix in the 1990s (Downie, Jr. and Kaiser, 2002). It is vital to understand that cable news plays an influential role in American society. Despite the fact that cable news channels, all combined, typically draw only 3 million viewers at any one time (or double that amount during a big, breaking story of national interest), we must recognize that among these 3 million are often “the political class—journalists, [public] officials, operatives, activists,” and for these elites, cable news is influential in “framing debates and anointing stars” (Cohen, 2006: 3). Indeed, most newsrooms are tuned in to one or several cable news channels at all times (Gitlin, 2002). It seems fair to say, then, that cable news’ influence is not represented merely by viewership numbers.

The continuous news ticker, or “the crawl,” is a function of new technology, which is never neutral; each new technology comes “equipped with a program for social change” (Postman, 1985: 157). As such, we should not embrace conditions brought on by technological change without attempting to fully comprehend all potential effects first.
(Winner, 1986). Nonetheless, many continue to do so, and, as we shall see, there are those—especially within the industry—who are prepared to sing the praises of the crawl without actually conducting research to discover if their laudatory statements are justified. We should not assume that the ticker, by offering us more information, is automatically a positive development for cable news viewers. Instead, we must seek to understand both its benefits and its unintended consequences, keeping in mind that “no medium is excessively dangerous if its users understand what its dangers are” (Postman, 1985: 161).

In addition, as short as the “news nuggets” in the ticker may be, we should not underestimate their importance. In 1922, Walter Lippman wrote that it was hard to imagine packing a report of what had happened in Korea over the course of several months into a 100 word-brief (Lippman, 1922: 42). One can only imagine how astonished he would be today to see the same effort taking place within a 10-word news crawl. But Lippman realized that these short snippets, these news nuggets, were not to be underestimated. In fact, he wrote, they could potentially form the basis of an important vote someday. The same holds true for the information dispensed in cable channels’ news tickers, as the crawl agenda setting work of Blackmon, et al. suggests (Blackmon, et al., 2004). Before we move further into a review of the news ticker and a discussion of the present theoretical framework, it is first important to understand cable news in more detail, both as a business enterprise and as a journalistic outlet.
Cable News: A Business Enterprise and a Journalistic Outlet

There is no doubt that cable news is big business. CNN (and all of its varieties, such as CNN International and CNN Headline News) is owned by Time Warner, MSNBC and CNBC are owned by General Electric (though Vivendi-Universal also claims 20 percent ownership) and Fox News Channel is owned by Rupert Murdoch’s News Corporation (Columbia Journalism Review, 2006). These companies, through their cable news outlets, can reach the majority of Americans. In 2002, 99 percent of U.S. homes had a television and 74 percent had cable or satellite service (Gitlin, 2002). In 2005, CNN averaged 853,000 viewers while Fox News led the way with more than 1.77 million, doubling CNN’s viewership; MSNBC struggled to keep up, averaging only 363,000 viewers (Greppi, 2006). There are indications that cable news is becoming more popular. In 2005, prime time cable news viewership increased four percent and the daytime audience grew by 3 percent compared to 2004; in turn, profits rose, with CNN taking in $304 million in profit and Fox News raking in $248 million (Pew Project for Excellence in Journalism, 2006).

The cable news business model is hungry for “big stories” which tend to have dramatic effects on ratings. For example, if one compares ratings during the week of the “Beltway sniper spree” (in which a shooter terrorized the greater Washington, D.C. area with random public assassinations in 2002) to cable news ratings for the same week one year later, one finds that ratings plummet during the second year (Greppi, 2006). When there is no dramatic breaking story to report, cable news has difficulty retaining viewers for more than a few moments. As media critic and sociologist Todd Gitlin notes,
“Imagining their audience fidgety, for good reason [a 2000 study showed three-fourths of Americans under 30 and 54 percent of those over 50 watch TV news with remote control in hand], the information, sports, and music networks build fitfulness directly into their displays” (Gitlin, 2002: 72).

It would be naïve to deny that cable news caters to the whims of the youth cohort, the core demographic that advertisers seek to target with their commercials. This creates something of a problem for cable news channels, because cable news audiences tend to be older (MSNBC had the “youngest” audience in 2001 with a median viewer age of 51); knowing this, some argue that cable news outlets made the move to fast-moving, graphics-heavy displays in order to attract younger viewers who, the channels may have theorized, would be more attracted to programming that resembled a website (Rutenberg, 2001).

This move may be somewhat of a lost cause, however, as research indicates that youth report engaging in national evening news or cable news viewing less than they do all other media activities—even reading books and magazines (Pasek, et al., 2006). Still, the business imperative of cable news demands that the channels supply advertisers with viewers’ eyeballs, and no eyeballs are prized so much as those in the 25-54-year-old cohort known in the industry as “the demo” (Cohen, 2006). As one CNN producer summed up the main business goal of his outlet, “We live in an environment where people are watching a channel for three minutes and then pressing that clicker. We’ve got to get them watching and keep them watching” (as quoted in the Los Angeles Times; cited in Rosen, 1991: 623).
Of course, attracting and retaining viewers is not the only goal of cable news. American cable news is not simply a business; it is also journalism, and as such, it carries with it certain responsibilities. Namely, cable news, like all U.S. journalism, is charged with the duty of providing citizens “with the information they need to be free and self-governing,” and with providing that information “in such a way that people will be inclined to listen” (Kovach and Rosenstiel, 2001: 17, 149). It is readily apparent to any observer that both cable news’ “main story” and the accompanying crawl provide viewers with information, but whether this information is delivered in such a way that people will be inclined to listen (and, perhaps more importantly, to comprehend and remember) demands evidence; this study begins the search for that evidence.

The Crawl: Research, History and Public Sentiment

Research on the ticker has been sparse. Blackmon, Bensen and Berhow undertook a content analysis of news tickers and found that tickers feature hard news; they also noted that the media’s agenda-setting function could be observed within the crawl (Blackmon, et al., 2004). The present study extends the important work of Blackmon, Bensen and Berhow and our content analysis (described in the following chapter) validates many of that work’s findings. However, Blackmon, et al. assume that “in terms of helping to better inform the public…a more diverse, varied news crawl would be desirable” (Blackmon, et al., 2004: 6). As we shall in our discussion of information overload, this assumption may not be valid; in fact, the opposite may be correct.
The crawl was also explored in the important work of Blain and Meeds, who hypothesize that news crawls will make memory (defined as recall and recognition) of a news program’s audio message decrease (Blain, 2002; Blain and Meeds, 2004). Blain and Meeds focus on the speed of the ticker and suggest identifying an ideal crawl speed that the cable news industry consider in order to improve information retention percentages. The present study takes a step back to ask whether the news ticker should be employed by networks at all in non-emergency situations.

In seeking to discern whether the crawl has an impact on memory of main story information, Blain and Meeds expose subjects to an artificially created news broadcast in which they place a ticker where there was originally no ticker. In contrast, our experiment (presented in detail in Chapter 5) uses an actual cable news broadcast. Rather than adding a ticker where there previously was none, we remove a ticker where there previously was one for our experimental group. It is theorized that this approach will lessen the extent to which such a laboratory experiment will contrast with “real world” situations, which is, of course, a common problem with experimental design (Kinder and Palfrey, 1993).

Because there has been so little research on the ticker, it is important for us to take the time to understand its rise to prominence and its evolution. In fact, the origins of the crawl are something of “a minor mystery in the news world,” according to Fox News’ David Rhodes, who speculates that the feature was “probably thought up by some half-crazed news director who was desperate to get out of Missoula” (Sella, 2001). What is certain, however, is that CNN had been preparing to introduce the crawl since the late summer of 2001, but when September 11, 2001 came about, the network rushed the new
feature to air that day (Moore, 2001). Actually, though, Fox News Channel first broadcast a continuous news ticker on 9/11. Fox’s crawl began at 10:49 a.m., CNN followed 22 minutes later and MSNBC joined the pack just before 2 p.m. (Sella, 2001).

While the appearance of the news ticker made intuitive sense to many on a news-heavy day such as September 11, 2001, commentators noted that “it’s also clear that the light-news days…would not be a very crawl-friendly environment” (McClellan and Kerschbaumer, 2001: 20). Nonetheless, the news ticker became a permanent fixture in the wake of 9/11, and would soon become a portal for news on everyone from “Saddam and Bin Laden to [movie stars] J.Lo and Ben” (Phan, 2003: D12). Interestingly, MSNBC temporarily removed its ticker once the chaos of 9/11 died down a bit, but quickly put it back in action after other cable news outlets failed to follow its lead (Romano, 2002).

How does the ticker work? It is produced using a character generator that operates on a continuous basis (that is, even when you cannot see it on screen, such as during commercial breaks) (Blain and Meeds, 2004). Some crawl items come from news wire services such as the Associated Press or Reuters, and others come from “in house” sources, but all go through a producer who decides which among the vast array of story summaries will hit the screen (Phan, 2003). On September 11, 2001 and in the days immediately following, cable channels used crawls to reinforce messages from the main story (which was nearly always related to the terrorist attacks of 9/11 in some way). Broadcast networks CBS, NBC and FOX also made use of the ticker in this way. However, gradually, the ticker’s content began to shift. “We use [tickers] to compliment what’s being said on the air,” said CBS News’ Al Ortiz, head of special event coverage at
the network. “We do that so it won’t be distracting or contradictory. I’ve seen quite a few cases on other outlets where the crawl contradicts what the anchor or reporter is saying. We go out of our way to make sure it’s consistent with what we’re reporting on the air” (McClellan and Kerschbaumer, 2001: 17).

The kind of “reinforcing” ticker Ortiz describes became less common on cable news outlets as time went on after 9/11. Now, as we shall see in the following chapter, the crawl is seldom related to the story that the anchor or reporter is reporting on. Because of this, some have speculated that viewers will find themselves “easily distracted” by information that does not relate to the main story (Sella, 2001). It should be noted that the news ticker is not entirely a phenomenon of cable news. More and more local news stations are adopting tickers of their own, many of them supplied for a fee by the Associated Press; such services feature news under a variety of headings, including “strange news,” and local affiliates have already started using such services (Kerschbaumer, 2002; Trigoboff, 2002).

There has been virtually no scholarly public research on cable news viewers’ feelings toward the news ticker, which is one powerful reason for conducting the uses and gratifications research that we detail in Chapter 4. What little research has been conducted suggests that youth adore the crawl and only old cohorts have negative feelings towards it (see research paraphrased in McClellan and Kerschbaumer, 2001). Our own uses and gratifications research does not corroborate this widely held assumption. It is clear, however, that not everyone is completely satisfied with the ubiquitous news ticker. In fact, former CNN President Jim Walton has indicated that he is
not a crawl fan and nearly 200 people signed an online petition asking channels to get rid of it, according to Newsday; the petition stated, in part, “The crawl distracts viewers from important issues and calls to question the cable news networks’ real purpose and intent” (Phan, 2003).

Walton is not the only television news industry insider to question the value of the crawl. Eric Ober, who ran CBS News from 1990 to 1996, has stated, “The worst thing you can do on a TV screen” is to distract from an anchor “reading a significant news story. You are muddying the presentation, and you are muddying the message” (as quoted in Steinberg, 2007: B7N). Others wonder what purpose the crawl serves on the majority of news days, when there is no big, breaking story to report. In fact, some have decided that on the run of the mill news day, the news ticker serves no valid purpose, and in fact may even detract from the effectiveness of news broadcasts. For example, Mike Cavendar, news director of WGCL in Atlanta, explains that his station stopped employing the news ticker because he “had people tell [him] that some stations or networks provide too much information, too much to digest” (Steinberg, 2007: B7N). It seems Cavendar’s station stopped using the crawl because his viewers were, in effect, complaining of information overload.

Information Overload Theory

Even if they have not specifically used the term “information overload,” scholars have been complaining about this by-product of industrialized media for at least 85 years now. In his landmark book Public Opinion, Walter Lippman griped that “under modern
industrialism, thought goes on in a bath of noise” (Lippman, 1922: 47). Information overload theory was defined more thoroughly—though again, the term itself was not used—in Alvin Toffler’s popular 1970 work, *Future Shock*, in which Toffler discussed “overchoice” as a problem which could plague future societies, leading to either paralysis by analysis or extremely uninformed decision-making (Toffler, 1970). Many scholars now state that the danger Toffler hypothesized has indeed become a reality, noting that citizens might be manipulated via media not so much due to character flaws as to “an inability to keep up with unrealistic information demands” (Mutz, 1998: 293).

In a sense, it may not be surprising that information overload—both in theory and in reality—has gained stronger traction across a wide variety of disciplines in recent years. Information producers and reporters have more technological tools, such as online databases, readily available than ever before, and as such, we might logically expect to receive much more information than in past eras (Schudson and Tifft, 2005). Some claim that U.S. citizens have never had more information or been better equipped to handle it (Patterson, 2002). The first part of this equation is undisputedly true. The second statement is questionable and would require longitudinal cognitive neuroscience data to validate the assertion.

It is important to be specific when talking about information overload, a theory closely related to cybernetics, which envisions human communication as a system of information surveillance, processing and feedback in which “noise” or “overload” can cause “a malfunction or ‘bug’ in a system” (Miller, 2005: 13). Often, information overload is misunderstood, as is the case with Nathan Shedroff’s approach to the theory.
Shedroff states that information overload is “not even a real condition” because “people cannot really digest more than they are inherently able to” (just like with drinking water or eating) so “it isn’t really possible to overload one’s brain with too much information” (Shedroff, 2001, in Wurman, 2001: 15). It is quite possible for an individual to eat or drink him or herself to death, but aside from the incorrect analogy, we must realize that focusing on how much information a person can “digest” completely misses the point of information overload. It’s only when we consider how much we can “digest” in relation to how much we are exposed to that we can properly consider information overload. That is, the overload may occur even if many messages are not cognitively “digested” by a receiver—indeed, this is the natural result of overloading a person with too much information. The brain itself may not “explode,” so to speak, but fewer messages will be able to get through the door into the realm of understanding when the doorway is being blocked by so many competing messages.

Others prefer the term “information anxiety” to “information overload” (Wurman, 2001). However, this thesis will use the term “information overload” because “anxiety” has certain psychological connotations that imply the trouble with the information deluge has more to do with the individual uncertain about handling it than it does with the system that produces such a deluge in the first place.

A useful definition of information overload is provided by Shenk, who writes that information overload is a situation in which “at a certain level of input, the law of diminishing returns takes effect; the glut of information no longer adds to our quality of life, but instead begins to cultivate stress, confusion, and even ignorance” (Shenk, 1997:
15). Perhaps even more helpful than a verbal definition of information overload is a numeric demonstration of the theory in action suggested by UCLA memory expert Robert Bjork in what he terms the list-link law (the reader is encouraged to play along):

Read out each of the letters and numbers from group one to yourself. Then close your eyes and recite from memory:

2H9.
Now try the same thing with group two:
47Q93F
Now try the same thing with group three:
8J3, D67, NVB, WS4, 2W9A, 11OL
Now the same with group four:
N4212, NFBC, ZYTV, GTFM, 85UY, 9K1L, 459O, IL1, 77H, 84CV, DWS3, AEB4, EBRK, EAR6, 811I. (Shenk, 1997: 49).

The point of Bjork’s test is not only that it becomes harder to remember the whole list as it gets longer, “but more important, it becomes more difficult to remember any single piece of it” (Shenk, 1997: 49). This is information overload in action.

With Bjork’s example as a guideline, then, we will define information overload as a situation in which a message receiver is bombarded with more disparate pieces of information than he or she can mentally process, leading to a state of cognitive arrest in which comprehension and retention of new information is nearly or completely impossible. This definition recognizes that information can, and often is, utterly useless to an individual if it is not presented in a meaningful context; that is, we must remember that the clichéd phrase that became clichéd for so many good reasons is “knowledge is power,” not “information is power” (Shenk, 1997). Carnegie Corporation President Vartan Gregorian recognized this distinction when he said that “we live in a time when information is in oversupply, but knowledge in undersupply” (as quoted in Thomas,
Understanding information overload requires us to make the epistemological distinction between information and knowledge.

Jean-Francois Lyotard noted this distinction when he contended that information is a bastardized form of knowledge in which the “reflective or contemplative” gives way to the “performative and pragmatic” (as quoted in Terranova, 2006: 287). Nonetheless, many modern dictionaries do not differentiate between information and knowledge, with Random House Webster’s Dictionary (Third Edition) defining information as “knowledge communicated or received concerning a particular fact” or as “knowledge gained through study, research, etc.” Yet, as Gitlin notes, we do not always retain information or learn in a meaningful way from “the images and sounds that [we] take in or sift through or that sift through [us]” (Gitlin, 2002: 9). Therefore, this study differentiates between information and knowledge, the latter being synonymous with quality information, which is defined as information that is true, useful, comprehensible and contextualized (Keefe-Feldman, 2006).

The idea of information overload has been applied in a number of different areas, from neuroscience (see Aratani, 2007 for a discussion of “multitasking”) to popular culture (Keller and Berry, 2003). The theory has also frequently been applied to media usage, though even some studies that have reported significant quantitative findings have been problematic. For example, Hamilton cites media overload statistics showing that 29.4 percent of a sample feel overloaded, with the older feeling more overloaded than the younger, but question wording may play a confounding role in these findings (respondents were asked, “Do you feel overloaded, or do you like having so much
information available,” a double-barreled question which could clearly leave room for various forms of a “both” answer) (Hamilton, 2004).

Because of the lack of empirical testing of information overload, much of the literature in this area remains theoretical. Ellul takes it as a given that humans have difficulty noticing incongruities between successive facts (Ellul, 1965). Similarly, Blain and Meeds, in their study of the crawl, assume that “when crawls are used in conjunction with news broadcasts they place greater resource demands on the brain than broadcasts that do not contain crawls” (Blain and Meeds, 2004: 8). We seek to test these assumptions in Chapter 5, with an eye toward how greater resource demands may affect comprehension levels.

It is important to note that information overload theory has been applied to the study of television’s audience effects, both directly and indirectly. Research has found, for example, that when audio and video presentations do not successfully match one another, it may create too large a strain on a viewer’s attentional capacity (Grimes, 1991). Others find that when we consider viewers’ comprehension of television, we must realize that many are already multitasking while watching TV, talking to family or completing other tasks (Ray, 1999). Therefore, it is important to recognize that subjects other than the crawl may have an impact on viewer comprehension of the “main story.” As he surveys the landscape of television media in relation to information overload, Shenk contends that we face “a paradox of abundance-induced amnesia,” which he finds quite troubling for a democratic nation that “must share information in order to remain a union” (Shenk, 1997: 124). “After two centuries of vigilance, it is almost surreal to
imagine that the republic will suffer mortal blows from cable television,” Shenk writes (Shenk, 1997: 129). This may well be hyperbole, but on the other hand, Shenk does have a point: If our exchange of quality information becomes disrupted to the point of dilution, citizens may find that they are not presented with the information they need to be free and self-governing in a context that fosters the employment of attention.

On the other hand, some argue that more information than we can cognitively deal with is to be admired, stating that we should be striving for “a video in which there is more, not less, going on than we can easily follow” (Stephens, 1998: 185). The reasoning behind such a position appears to be that this is the approach that will be needed if television is to be studied in the way that great books are studied (Stephens, 1998). Yet, we must recognize that different media are suited to accomplish certain functions better than others (Katz, et al., 1973). That is, from a societal standpoint, rather than wishing television were more like books for research purposes, we should be thinking about the medium’s unique contributions and how to maximize that which television does best and minimize that which television does not do well.

We shall return to such matters in a discussion at this study’s conclusion. For now, we begin our examination of the cable news ticker in an effort to discern whether its presence may have effects on viewer comprehension that information overload theory might reasonably predict. First, however, we must better understand how the ticker works and how cable news viewers use it. We turn to these matters in Chapters 3 and 4.
Chapter 3: Cable News Ticker Content Analysis

Before turning to our main research question of whether the ticker exerts any influence on viewer comprehension of cable news programming, it is first important for us to gain some understanding of exactly how the ticker functions. How many news items typically appear in the ticker during a certain time frame? Are most of these items related or unrelated to the main news broadcast? What is the level of ticker repetition? Is there a difference in ticker display among various cable news channels such as CNN, Fox News Channel and MSNBC? In order to answer these questions, and thereby gain a better understanding of how the ticker works in actuality, a content analysis is most useful.

Methodology

A content analysis of cable news tickers was conducted using a sample of six hours of cable news programming. The day of recording, Thursday, January 25, 2007, was picked randomly. The time of recording, 9 a.m. to 11 a.m., was purposive because the three cable channels to be analyzed, CNN, Fox News and MSNBC, all broadcast two hours of regular live news during this period. That is, rather than specialty cable news programs such as “Larry King Live” or “Fox and Friends,” the two-hour time period selected contained only straight delivery of the morning’s news in a non-“show” framework. The programming in this analysis fell under the more generic headings of “CNN Newsroom,” “Fox News Live” and “MSNBC Live” (TV Guide.com, 2007).
A completely random sample would not be methodologically sound in this case, for comparing the ticker during a program such as Fox News’ “The O’Reilly Factor” to the ticker during “CNN Newsroom” could be a matter of apples and oranges. It was necessary to strive for an analysis that would take place during similar programming on the three channels if the analysis were to tell us anything about the ticker itself, rather than simply the differences between televised deliveries in a show versus non-show format. In addition, it was important that the broadcasts be selected from the same two-hour time window so that, theoretically speaking, the cable channels had the same set of current events from which to build a newscast around.

CNN, Fox News and MSNBC were simultaneously recorded to VHS in the Gelardin Media Center at Georgetown University on Thursday, January 25, 2007. Content analysis was conducted on Friday, January 26 and Saturday, January 27, 2007 using a stopwatch, a television and a VCR. Items in the crawl were coded as either “related” or “unrelated” to the main news story and were marked for repetition when it occurred. Advertising time was also recorded, and some results have been adjusted, where noted, to account for discrepancies between the three cable channels in the amount of time allotted to advertising.

Figures adjusted for greater advertising time on Fox and MSNBC (in comparison to CNN) were calculated by averaging the total number of ticker items presented in a 10 minute segment on Fox and MSNBC and then using this average to estimate the likely amount of news items that would have occurred within the ticker had these cable channels presented the same amount of advertising time as CNN. For example,
MSNBC’s numbers (shown in Table 3.1) were adjusted to account for an average of 24 seconds more advertising time per 10 minutes than CNN. Based on MSNBC’s average ticker presentations per 10 minutes, it was calculated that approximately .65 of one ticker item would likely occur in 24 seconds. This would then lead to 7.8 more ticker items in total for MSNBC’s adjusted numbers.

Results presented within this chapter underwent inter-coder reliability testing by paralegal Kathleen Diina, who analyzed 50 minutes of the recorded content (including the first 20 minutes of the Fox News and MSNBC programming and the first 10 minutes of the CNN programming). The coding scheme laid out in the “methodology” section of this chapter was explained to the second coder, who then coded in isolation (see Appendix A for more on inter-coder reliability). Reliability testing yielded a Cronbach’s Alpha statistic of .997, indicating a very high level of correspondence between coders. The minor difference between the coders can likely be attributed to a slightly different interpretation of what should be seen as a “related” ticker news item or other human error. Nonetheless, our Cronbach’s Alpha indicates that we should have confidence in the validity of the data herein.

In this content analysis, additional visual content (such as logos, title banners or upper screen division techniques) was not taken into consideration, though adding these elements could contribute to a more holistic content analysis and would surely be a worthwhile future pursuit.
Operational Definitions, Research Questions and Hypotheses

A mark was made on our coding sheet each time an “individual news item” appeared on the screen. An individual news item is defined broadly as “any piece of information in the ticker that is not a continuation of or addendum to the piece of information that came before it.” For example, in this segment from MSNBC, we find five items presented in the crawl, but only three can be considered individual news items:

*SENATOR JOHN KERRY (D-MA) ANNOUNCES HE WILL NOT RUN AGAIN FOR PRESIDENT IN 2008
*INSTEAD, KERRY SAYS HE WILL SEEK REELECTION TO A FIFTH TERM IN THE SENATE IN 2008
*NOW ON MSNBC.COM: VIDEO: KERRY WON’T RUN IN 2008
*LOUISIANA GOV. KATHLEEN BLANCO ANGRILY CRITICIZED PRES. BUSH FOR NOT MENTIONING 2005’S DESTRUCTIVE HURRICANES IN HIS STATE OF THE UNION ADDRESS, AND SAID LOUISIANA IS BEING SHORTCHANGED IN FEDERAL RECOVERY FUNDING FOR POLITICAL REASONS
*THE DEMOCRATIC-CONTROLLED SENATE FOREIGN RELATIONS COMMITTEE VOTED 12-9 IN FAVOR OF A NON-BINDING RESOLUTION SAYING PRES. BUSH’S PLAN TO SEND 21,000 MORE TROOPS TO IRAQ IS ‘NOT IN THE NATIONAL INTEREST’

The first three ticker items above, all of which relate to John Kerry’s decision not to run for president in 2008, only count as one individual news item in our operational definition. The last two pieces of information above both count as individual news items. For one more example of this, the four pieces of information below, all of which were separated by MSNBC’s peacock icon (represented here by an asterisk) on-screen, can be considered just one individual news item:

*A FORMER MISSISSIPPI SHERIFF’S DEPUTY IS UNDER ARREST IN ONE OF THE LAST MAJOR UNSOLVED CRIMES IN THE CIVIL RIGHTS ERA
*THE 1964 CASE INVOLVED THE KILLINGS OF TWO YOUNG BLACK
MEN, WHO WERE BEATEN AND DUMPED IN THE MISSISSIPPI RIVER TO DROWN
*THE SUSPECT, NOW 71, WAS A REPUTED MEMBER OF THE KU KLUX KLAN
*NOW ON MSNBC.COM: NBC VIDEO: COLD CASE SOLVED?

We counted individual news items in this way because, from a cybernetic perspective, we are most interested in how many new pieces of information a person is presented with in a given period. New information that relates to older information may be more likely to keep the viewer’s attention focused on that older information, which is why the four “news nuggets” above were considered just one individual news ticker item.

An individual news item was coded as a “repeat” if the coder had already seen the news item appear in the ticker. In other words, if a coder witnessed the series above (about the civil rights-era killings) twice during the two-hour time frame, that would amount to two individual news items and one “repeat” individual news item.

We also coded for whether an individual news item was related or unrelated to the main (upper, larger portion of the TV screen) newscast. An individual news item was defined as unrelated to the main newscast if a reasonable news producer or citizen would likely say that the item in the ticker would not make logical sense if delivered within the context of the main newscast. That is, a reasonable person would likely declare that discussion of a U.S. lottery winner would not be logically appropriate in a story about a bombing in Iraq. Indeed, it would be difficult to imagine a cable news reporter saying, “A bomb went off in Baghdad today. One lucky Powerball winner raked in $17 million this week in the U.S. The bomb injured several U.S. soldiers.” Such a news presentation
would lack coherence, and it is by this standard that an individual news item was judged as either related or unrelated to the main newscast.

Conversely, an individual news item in the ticker was defined as related to the main newscast if a reasonable news producer or citizen would likely say that the item in the ticker would make logical sense if delivered within the context of the main newscast. A ticker item about debate over U.S. strategy in Iraq would therefore be considered related to a main newscast story about problems in Iraq, for one can easily imagine a reporter saying, “A bomb went off in Baghdad today. Several U.S. soldiers were injured. Meanwhile, legislators in the U.S. debated what to do about the unending violence in Iraq.”

One special case exists to the above coding rule: promotional material. Although a reporter may promote the channel he or she works for after delivering a story, promotions such as “CNN: The most trusted name in news” cannot be considered related to any news story, except perhaps a story about the cable news business itself. Therefore, if promotional material crawled across the ticker, it was coded as an individual, and unrelated, news item. When referring to a “ticker item” in this paper, it should be understood that this is simply a shorthand version of an “individual ticker item” or an “individual news item.” We shall use these terms interchangeably within.

With our operational definitions in place, we can now move on to state the main research questions and hypotheses of this content analysis:
RQ 3.1: Does the ticker on cable news networks such as CNN, Fox News and MSNBC tend to be more often related or unrelated to the main newscast?

H1: The ticker on cable news networks such as CNN, Fox News and MSNBC is most often unrelated to the main newscast.
H0: The ticker on cable news networks such as CNN, Fox News and MSNBC is most often related to the main newscast.

RQ 3.2: Are there quantitative differences in the average amount of individual news items presented in the ticker on different cable news networks such as CNN, Fox News and MSNBC when advertising time is adjusted to be equal among all networks?

H1: There are quantitative differences in the average amount of individual news items presented in the ticker on cable news networks such as CNN, Fox News and MSNBC when advertising time is adjusted to be equal among all networks.
H0: There are not quantitative differences in the average amount of individual news items presented in the ticker on cable news networks such as CNN, Fox News and MSNBC when advertising time is adjusted to be equal among all networks.

RQ 3.3: Are there quantitative differences in the average amount of individual news items repeated on cable news channels such as CNN, Fox News and MSNBC?

H1: There are quantitative differences in the average amount of individual news items repeated on cable news channels such as CNN, Fox News and MSNBC.
H0: There are not quantitative differences in the average amount of individual news items repeated on cable news channels such as CNN, Fox News and MSNBC.

**Results**

The three cable news channels analyzed typically presented viewers with one, two or three individual ticker items every minute. Over the course of two viewing hours, that amounted to 224 individual ticker items on CNN, 167 individual ticker items on Fox News and 157 on MSNBC. Did these news nuggets reinforce points from the main story or compete for the viewer’s attention with unrelated matter?
Let us turn to RQ1, whether the ticker on these three cable channels tends to be more often related or unrelated to the main newscast story. As we see in Table 3.1 and Table 3.2 on the following page, the ticker on all three channels tends, in overwhelming fashion, to be unrelated to the main news story. MSNBC exhibited the most “related” stories with an average of 6.5 ticker items related to the main story per hour (or 1.08/10 minutes). Still, this paled in comparison to MSNBC’s number of unrelated ticker items, which averaged 72 per hour (or 12/10 minutes).

CNN averaged more related ticker items (5/hour) than Fox (1.5/hour), but CNN also registered more unrelated ticker items than Fox by a margin of 107 to 82. Taken as an aggregate, if a viewer were to watch all three of these cable news channels at once (if such were hypothetically possible), said viewer would be presented with an average of 87 individual ticker news items in an hour, only 4.33 of which would be related to the main news story; in the average 10 minutes, a viewer is unlikely to see even one (.678) related ticker item when the three channels are analyzed in the aggregate. These findings strongly support RQ 3.1’s first hypothesis: The ticker on CNN, Fox News and MSNBC is most often unrelated to the main newscast. We can reject H0 for RQ 3.1.

Our second research question of this chapter dealt with whether there are significant quantitative differences in the amount of individual news items presented in the tickers of the three channels within this content analysis. Both before and after adjusting figures to account for differences in the amount of on-air time devoted to commercials, it appears that there are significant differences in the amount of individual
Table 3.1 *Average total, related and unrelated individual news items in ticker, by channel*

<table>
<thead>
<tr>
<th></th>
<th>CNN</th>
<th>FOX</th>
<th>MSNBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. ticker items</td>
<td>18.66</td>
<td>13.93</td>
<td>13.08</td>
</tr>
<tr>
<td>per 10 minutes</td>
<td></td>
<td>14.62*</td>
<td>13.73*</td>
</tr>
<tr>
<td>Avg. ticker items</td>
<td>112</td>
<td>83.5</td>
<td>78.5</td>
</tr>
<tr>
<td>per hour</td>
<td></td>
<td>87.7*</td>
<td>82.4*</td>
</tr>
<tr>
<td>Avg. ticker items</td>
<td>.83</td>
<td>.13</td>
<td>1.08</td>
</tr>
<tr>
<td>related to main</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 10 minutes</td>
<td>5</td>
<td>1.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Avg. ticker items</td>
<td>17.83</td>
<td>13.66</td>
<td>12</td>
</tr>
<tr>
<td>related to main</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per hour</td>
<td>107</td>
<td>82</td>
<td>72</td>
</tr>
<tr>
<td>Avg. ticker items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unrelated to main</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 10 minutes</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>

* Adjusted to account for more time dedicated to advertisements. CNN had the lowest average time dedicated to ads (2 minutes, 19 seconds of commercials per 10 minutes). Fox averaged 2 minutes, 50 seconds of commercials per 10 minutes. MSNBC averaged 2 minutes, 43 seconds of commercials per 10 minutes. Similar adjustments were not conducted on related/unrelated figures because the sample size (2 hours per channel) is not considered large enough to provide an accurate determination of how many of the adjusted seconds would have contained related/unrelated news ticker items.

Table 3.2 *Average related/unrelated individual news items in ticker (aggregate)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrelated/10 min.</td>
<td>14.5</td>
</tr>
<tr>
<td>Unrelated/hour</td>
<td>87</td>
</tr>
<tr>
<td>Related/10 min.</td>
<td>.678</td>
</tr>
<tr>
<td>Related/hour</td>
<td>4.33</td>
</tr>
</tbody>
</table>

32
ticker items presented by the various channels. CNN, which had the least amount of commercial time (and was therefore used as the bar for adjusting figures for Fox News and MSNBC), averaged 112 ticker items per hour (18.66/10 minutes). Interestingly, even though CNN had the most amount of commercial time, it also provided the most ticker items. After adjusting for commercial time discrepancies, Fox remained a distant second in terms of crawl items presented (averaging 87.7 items/hour or 14.62/10 minutes). For both adjusted and unadjusted ticker item averages, see Table 3.1.

MSNBC presented the fewest ticker items, on average. MSNBC averaged 82.4 items/hour or 13.73/10 minutes after adjusting for advertising time. Although length of ticker items was not included in this content analysis, it seemed clear to coders that MSNBC’s lower levels of ticker items could be attributed not necessarily to longer length ticker items so much as to more “continuing” ticker items. That is, MSNBC’s ticker tended to display more of a narrative, with several pieces of information presented in a row that related back to the first in a “series” of ticker items (as in the “John Kerry” and “civil rights murders” examples presented earlier in this chapter). Again, when such a narrative presented itself within the ticker, it was coded as one individual ticker item, even if the subject was broken down into separate parts on screen. Table 3.1 details the discrepancy in advertising time between the three channels, which was not particularly large. After adjusting for commercials, CNN still presented above 25% more ticker items per hour or per 10 minutes than MSNBC. In terms of amount of items in the ticker, Fox News provided a “middle road” between these two poles. Given these differences, we can support RQ2’s first hypothesis: There are quantitative differences in the average amount
of individual news items presented in the ticker on CNN, Fox News and MSNBC when
advertising time is adjusted to be equal among all networks. Further, this result holds true
even if we do not adjust for advertising time discrepancies. We can therefore reject H0
for RQ 3.2.

The third research question of this chapter asks whether there is a quantitative
difference in the amount of individual news items that are shown repeatedly in the ticker
during the course of our two-hour analysis window. As Table 3.3 shows, MSNBC was
the most repetitive in its ticker display of the three cable channels. MSNBC averaged
11.25 ticker repetitions per 10 minutes; CNN averaged 11 repetitions per 10 minutes and
Fox averaged 10.75 repetitions per 10 minutes.

Table 3.3 Average ticker item repetitions, by channel

<table>
<thead>
<tr>
<th></th>
<th>CNN</th>
<th>FOX</th>
<th>MSNBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. item rep</td>
<td>11</td>
<td>10.75</td>
<td>11.25</td>
</tr>
<tr>
<td>per 10 min.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg. item rep</td>
<td>66</td>
<td>64.5</td>
<td>67.5</td>
</tr>
<tr>
<td>per hour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repetition as</td>
<td>59%</td>
<td>77%</td>
<td>86%</td>
</tr>
<tr>
<td>% of total ticker items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg. rep per</td>
<td>5.17</td>
<td>9</td>
<td>9.66</td>
</tr>
<tr>
<td>10 min. (hour</td>
<td>vs.</td>
<td>vs.</td>
<td>vs.</td>
</tr>
<tr>
<td>(1 vs. hour 2)</td>
<td>16.83</td>
<td>12.17</td>
<td>12.83</td>
</tr>
</tbody>
</table>

Note: These figures have not been adjusted in order to account for variations in time
dedicated to advertisements. The largest differential in commercial time was between Fox
News and CNN; Fox averaged 31 seconds more advertising time per 10 minutes than
CNN.
However, there is more differentiation in these numbers than it might appear, given that CNN displayed so many more ticker news items than MSNBC. This point becomes most clear when we look at the various cable channels’ levels of individual ticker item repetition as a percentage of its total ticker presentation. 59% of CNN’s ticker items were repeats, much lower than the repetition levels of Fox News (where 77% of individual news items were repeated over the course of two hours) and MSNBC, whose ticker items repeated themselves at a whopping 86% level in a two-hour period. All three of the channels appeared to be on a ticker “cycle” in which the same news ticker items came through in the same order after a certain period of time, with new items added to the mixture only sporadically.

For CNN, this cycle seemed to “start over” during the fifth 10-minute period of analysis (or sometime after 50 minutes). For Fox News, the cycle reset itself about halfway through the second 10-minute period of analysis. For MSNBC, the cycle started repeating itself toward the end of the first ten minutes of analysis. Given these findings, there is ample evidence to support RQ3’s first hypothesis: There are quantitative differences in the average amount of individual news items repeated on CNN, Fox News and MSNBC. We can reject our null hypothesis for RQ 3.3.

One additional content analysis test was undertaken to determine if the three cable channels displayed their tickers at different speeds. As Table 3.4 indicates, CNN and MSNBC were very close to one another (so close, in fact, that the .4 second difference between the two could potentially be due to timer or stopwatch error). Fox News’ ticker, at first glance, appears to move more than 2 seconds faster than those on the other
Table 3.4 *Approximate ticker times, by channel*

<table>
<thead>
<tr>
<th></th>
<th>CNN</th>
<th>FOX</th>
<th>MSNBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seconds from letter appearance to disappearance</td>
<td>6.5</td>
<td>4.1*</td>
<td>6.9</td>
</tr>
</tbody>
</table>

*Note:* The times above are approximate and are representative of the average time it took a single letter to cross the television screen on the ticker. Times presented are an average of four single-ticker-letter “time trials” on each of the cable channels.

*Fox News Channel devoted less screen space to its crawl during recording hours, which undoubtedly contributed to its “faster” time trials represented above.

channels do. However, this is likely due to the fact that, during the analysis hours, Fox News devoted less physical screen space to its ticker (this is not the case with much of Fox’s programming during other on-air hours) to make room for logos and stock information. That is, while CNN and MSNBC allowed their tickers to scroll along the entire bottom of the screen, Fox News Channel, during the period under analysis, wedged its ticker in a smaller space in the lower center of the screen. It is likely these space considerations, rather than the speed of Fox’s ticker, that accounts for the ticker time difference seen in Table 3.4. The differences in the display of Fox’s ticker as compared to those of CNN and MSNBC can best be understood by viewing screen shots of the three cable channels in Figure 3-1.
Analysis

If we are to conduct a meta-analysis within the context of information overload theory, individual news items in the ticker that are unrelated to the main broadcast may be considered “attention and comprehension dividers,” while individual news items in the ticker that are related to the crawl may be considered “attention and comprehension reinforcers.” That is, a ticker item that reiterates or contributes to the message of the main newscast theoretically may keep a viewer focused on that main newscast, while a ticker that is wholly unrelated to the main newscast may serve to divide or distract attention from the main news story that a viewer is presented with at any given moment. When we consider the relationship of the ticker to the main news story and the repetition of ticker items, we ought to do so with a concern for whether viewer comprehension and learning is being done a service or a disservice. For, as nearly any educator will likely agree, “learning grows by repetition” (Filene, 2005).
If repetition and reinforcement aids in the learning and memory process, then we may view main story-related ticker items and repeated ticker items as a positive force for viewer comprehension. Alternately, disconnected ticker items and lack of repetition may serve to hinder learning and actual viewer comprehension. Given these stipulations and our finding of a largely “unrelated” ticker, we might expect the crawl to have negative effects on cable news viewer comprehension.

If this is indeed the case (and the experiment described in Chapter 5 will help us determine if it is), then MSNBC appears best suited toward viewer comprehension, given that it offers viewers less info nuggets in its crawl, and more of these nuggets are related to the main news story. In addition, more are repeated. CNN seems worst equipped to foster viewer learning if our assumption holds true, as it features the most information-laden ticker with the most amount of main story-unrelated items and the lowest levels of repetition. Fox News falls somewhere in between these two.

Despite these variations, the content analysis within indicates that there are more similarities among the three channels than differences when it comes to the substance of the ticker to main newscast relationship. None of the channels offered much beyond a single “related” ticker item in the average 10-minute period (MSNBC, which featured the most “related” ticker, just barely broke this mark with 1.08 related items per 10 minutes).

This content analysis has concerned itself primarily with the form of the ticker, and with its content, but only in relation to the main story. The hypotheses that have been supported in this chapter suggest that while there are certainly differences in the ticker presentations of CNN, Fox News Channel and MSNBC, all three of these channels are
united in an overwhelming, almost constant tendency to provide viewers with information in the crawl that is in no way related to the main news story presented on the upper portion of the television screen (unless one subscribes to the butterfly effect theory that *everything* is related in some way). This is the primary finding of the content analysis, and of this chapter.

It is worth noting that because Fox News falls in-between CNN and MSNBC in terms of average number of ticker items presented, Fox will be an optimum choice for the comprehension experiment we shall present in Chapter 5 (especially given that the Fox News sample used in the comprehension experiment featured a ticker that, unlike the one described in this chapter, did *not* share the lower portion of the screen with stock information and a constant logo, putting it more in line with the norm on other cable news channels).

The results of our content analysis suggest that that the cable news ticker can more reasonably be classified as an “attention and comprehension divider” than as an “attention and comprehension reinforcer”—but whether or not such a classification holds true in reality depends upon the way in which viewers make use of the ticker and of cable news in general. If viewers tend to ignore the ticker, then such a classification may be erroneous, for a medium cannot be said to have an effect on a population if that population pays no attention to the medium. Further, if viewers do not tune in to cable news channels in order to comprehend and learn information in the first place, then all of the above may be a moot point, for we will have been testing for a function of cable news (learning and the fostering of comprehension) that viewers do not expect it to deliver. In
order to determine whether the findings of this chapter are meaningful, then, we must look at the ways in which viewers use cable news, and at the reasons behind their usage. We turn to these issues in the following chapter.
Chapter 4: Uses and Gratifications Research on Cable News Viewers

If we are to conduct a comprehension experiment with cable news viewers, we must first ascertain whether news comprehension is their primary goal in cable news viewing. That is, we should understand whether viewers are more interested in cable news for its potential to entertain, or to help them “pass the time,” than for its potential to inform them in a way that they can understand, remember and learn from. Alternately, if viewers are choosing to view cable news for educational or informational purposes, we want to know this as well. It is quite likely that different viewers use cable news for different reasons; however, we are interested in the primary motivator behind cable news viewing. When we study viewer comprehension and retention of cable news information as it relates to the news ticker, are we merely studying an unintended consequence of entertainment programming, or are we delving into the main promise of (and motivation for viewing) cable news? In order to answer these and other questions related to viewers’ expectations of and uses for cable news programming, we employ a uses a gratifications survey.

Operational Definitions, Research Questions and Hypotheses

The overarching research question and hypotheses of this chapter can be stated as follows:

RQ 4.1: Do viewers use cable news primarily as an educational vehicle with which to inform themselves or as a source of entertainment?
H1: Most viewers use cable news primarily as an educational information vehicle, while a minority use cable news primarily as entertainment.
H0: Most viewers use cable news primarily as entertainment, while a minority use cable news primarily as an educational information vehicle.

We are also interested in other questions pertaining to the cable news ticker. Do viewers like or dislike this feature of cable news? How do viewers use the ticker, if at all, when watching cable news programming? These questions will also be explored in this chapter. For now, we begin with these additional research questions and hypotheses, which seek to discern whether there is a connection between individuals’ attitudes toward daily news intake amounts and the cable news ticker:

RQ 4.2: Do viewers satisfied with the amount of news they receive on a typical day tend to find the cable news ticker “helpful and informative?”

H1: Viewers satisfied with the amount of news they receive on a typical day tend to find the cable news ticker “helpful and informative.”
H0: Viewers satisfied with the amount of news they receive on a typical day do not tend to find the cable news ticker “helpful and informative.”

RQ 4.3: Do viewers who believe that cable news provides too many facts without context tend to find the cable news ticker “an unhelpful distraction that hinders their ability to concentrate” on the main story?

H1: Viewers who believe that cable news provides too many facts without context tend to find the cable news ticker “an unhelpful distraction that hinders their ability to concentrate” on the main story.
H0: Viewers who believe that cable news provides too many facts without context do not tend to find the cable news ticker “an unhelpful distraction that hinders their ability to concentrate” on the main story.

Methodology

In order to test our research questions, as well as to gather other viewer uses and gratifications data related to the cable news ticker, we distributed an online survey via e-
mail to the general public at noon on Wednesday, April 12, 2006. A convenience sample was collected, as the survey (which asked respondents to forward it on to others) was distributed via e-mail lists. The survey was officially closed after 16 days, at 5:50 p.m. on Friday, April 28, 2006.

Aside from demographics questions, the survey asked respondents: a. how often they watch cable news in an average week; b. how interested one is in cable news in general; c. the main reason why one watches cable news; d. the cable news channel one watches the most often; e. one’s level of attention to both the main broadcast story and to the ticker (and, for those who stated that they shift between the two, what determines attention shifts from the main story to the ticker or vice versa); f. general attitude toward the ticker and cable news as a whole; and g. feelings toward the amount of news one encounters on a daily basis. This is merely a rough outline of the questions contained within the survey. For a more complete picture, see the full survey, including results, in Appendix B.

**Results**

Survey response rate was sufficient (n=149). Control variables did not produce any notable divides in answer choices, with the exception of respondent age, which was a noteworthy factor in some regards, as we shall detail later in this chapter. Respondents ranged in age from 17 to 80 years old. Nearly half (47.3 percent) of respondents were age 29 or younger, a fact that can likely be attributed to the demographics of the CCT program, which attracts graduate students that are often below age 30 (the program also
tends to skew heavily female, which may help explain why 63.5 percent of respondents were female). 25.3 percent of respondents were in their 30s or 40s, 21.9 percent were in their 50s or 60s and 5.5 percent were 70 or older. These percentages reflect an adjusted sample (n=146) to account for three respondents who did not enter a valid age. It is worth noting that 65.1 percent of respondents were in the 25 to 54-year-old bracket. This is noteworthy because, as Cohen states, “Almost as important to TV executives as their total audience is the number of viewers in the 24-to-54 age demographic that advertisers cherish…known as ‘The Demo’” (Cohen, 2006). Almost two-thirds of respondents were part of this “demo.”

Out of 140 respondents who disclosed their race, 90 percent were white and 10 percent listed a different race. In general, respondents were “cable news viewers.” 87.9 percent reported watching some cable news TV during “an average week,” with 55.7 percent saying that they watch cable news for one hour or more. 77.1 percent of respondents said that they are “somewhat” or “very” interested “when it comes to cable news.” Only 12.1 percent of respondents stated that they do not watch cable news in an average week. These respondents will be excluded from our results related to cable news viewing. However, given that 87.9 percent of respondents reported watching cable news in an average week, it seems fair to say that this survey did indeed reach those who can truly be labeled “cable news viewers.”

Let us now turn to our primary research question (4.1) and related hypotheses. Do viewers use cable news primarily as an information vehicle or as entertainment? 66.6 percent of respondents who watch cable news indicated that the main reason they do so is
because “it keeps [them] informed” (p<.10). By way of contrast, 11.43 percent of cable news-viewing respondents stated that the main reason they watch cable news is for entertainment purposes (answers of “it entertains me” and “it passes the time” were both coded as entertainment-related responses). These results lead us to reject H0 since it is clear that a large majority of cable news viewing respondents tune in mainly for information-seeking purposes. We can therefore support H1: Most viewers use cable news primarily as an educational information vehicle, while a minority use cable news primarily as entertainment.

Who is this minority reported above? Youth, mostly. Among cable news viewing respondents, youth are much more likely to watch cable news for entertainment or “to pass the time” (and/or to admit to this viewing motivation) than older viewers. 18.6 percent of respondents age 17-30 consider entertainment their main reason for viewing cable news, while only 6.7 of 31-49-year-olds felt the same, and only 3 percent of the 50+ cohort reported watching primarily for entertainment (p<.10). Youth were also much more likely to see cable news as providing “too many facts without context.” 68.3 percent of cable news viewing respondents aged 17 to 30 agreed, “somewhat” or more strongly, with this statement, while the same held true for only 46.3 percent of those aged 31-49 and for only 31.2 percent of the 50+ cohort (p<.05). See Table 4.1 on the following page.

Alongside being more likely to view cable news as entertainment and to see cable news as lacking context, youth were also more likely to feel “overwhelmed” by the amount of news they are presented with on a typical day (taking into account all news
Table 4.1 *Viewer uses for and feelings toward cable news, by age*

<table>
<thead>
<tr>
<th></th>
<th>17-30 years old</th>
<th>31-49 years old</th>
<th>50-80 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of viewers who:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watch for information*</td>
<td>67.8%</td>
<td>63.3%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Watch for entertainment*</td>
<td>18.6</td>
<td>6.7</td>
<td>3</td>
</tr>
<tr>
<td>Think cable news has too many facts without context**</td>
<td>68.3</td>
<td>46.7</td>
<td>31.2</td>
</tr>
<tr>
<td>Feel overwhelmed by daily news amount*^</td>
<td>40.3</td>
<td>28.1</td>
<td>20</td>
</tr>
</tbody>
</table>

** p < .05
* p < .10

The “watch for entertainment row” includes those respondents who said that they watch cable news for entertainment as well as those who responded that they watch “to pass the time.” The latter two rows above were calculated by including those who either “strongly agree,” “agree” or “somewhat agree” with the corresponding survey statements.

^Note that this item refers to feelings toward daily news intake in general, not cable news exclusively.

information, not just cable news). 40.3 percent of all respondents age 17-30 said they agreed, at least somewhat or more strongly, with the statement, “On a typical day, I am
overwhelmed by the amount of news I am presented with.” In contrast, 28.1 percent of those 31-49 agreed with the same statement at least somewhat, and only 20 percent of the 50+ contingent agreed, at least somewhat, that the amount of news they receive leaves them feeling overwhelmed. Out of all respondents, nearly one-third (32 percent) said that they “somewhat” agree or more strongly agree with the “overwhelmed” statement (p<.10).

The survey also yielded some valuable information about the relationship between cable news viewers’ attitudes toward the ticker and their contentment or discontentment with the facts/context relationship on cable news programs. A Pearson correlation shows that viewer feelings that the ticker is “an unhelpful distraction that hinders [their] ability to concentrate on the main broadcast story” was significantly correlated at the .35 level with viewer feelings that cable news “provides too many facts without context” (p<.01).

Notably, the converse of the above ticker discontent/context discontent relationship is also significant. A Pearson correlation shows that viewer feelings that the crawl is “a helpful and informative addition to cable news broadcasts” was significantly correlated at the .19 level with viewer feelings of satisfaction with the amount of news one is presented with on a typical day (p<.05). See Table 4.2 on the following page.

In considering research questions 4.2 and 4.3, these findings lead us to reject H0 in both cases. Our findings provide weak to moderate support for H1 for both research questions: Those who are satisfied with the amount of news they receive on a typical day tend to find the cable news ticker “helpful and informative,” and those who believe that
cable news provides too many facts without context indeed find the cable news ticker “an unhelpful distraction that hinders their ability to concentrate” on the main story.

Table 4.2 Correlations: Viewer news satisfaction/dissatisfaction and opinion of crawl

<table>
<thead>
<tr>
<th></th>
<th>Satisfied with news amount</th>
<th>Think news has too many facts without context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think crawl is helpful</td>
<td>.19*</td>
<td>.27**</td>
</tr>
<tr>
<td>Think crawl is unhelpful</td>
<td>.09</td>
<td>.346**</td>
</tr>
</tbody>
</table>

* p< .05  
**p< .01

It should be noted that our Pearson correlation revealed other relationships in the data, as well. Strangely, feelings that the crawl was an “unhelpful distraction” was significantly, strongly correlated to feelings that the crawl was a “helpful and informative addition” to cable news at the .692 level (p<.01). Further study is needed to determine exactly what this means, but it could be that viewers have mixed feelings about the ticker, finding it helpful at certain times and distracting at other times. Also, viewer satisfaction with the crawl was correlated with the belief that cable news provides too many facts without context at the .27 level (p<.01), indicating that even those who were satisfied with the news ticker wish cable news would provide more context in general.

The findings presented thus far in this chapter carry an acceptable level of statistical significance within the field of communication research. It is also worthwhile
to consider some findings derived from running frequencies on our uses and gratifications survey data set. To begin, we find that CNN was by far the most popular cable news outlet among respondents, with 61.6 percent indicating that it is the cable news channel they watch most often. Also of interest is the power of the ticker: 77.3 percent of those who watch cable news stated that they pay attention to the ticker at least “sometimes.” Over two-thirds of cable news viewing respondents (about 68.5 percent) disagree at least “somewhat” with the statement that they “rarely” make use of the ticker.

Interestingly, it seems that many cable news viewers attempt to use the ticker at the exact same time that they are using the main story. Almost two-thirds (64.4 percent) of cable news-viewing respondents said that, when balancing between the ticker and the main story, they try to “take it all in at once.” An even higher percentage (80.5) at least “sometimes” shifts attention back and forth between the main story and the ticker. The discrepancy between this number and the 64.4 percent who at least “sometimes” try to “take it all in at once” may be an indication that approximately 16 percent of those who shift their attention do so in a way that gives undivided attention to whichever (ticker or main story) they are focusing on at a given moment; this would also indicate that the vast majority of those who shift between the two attempt to keep “one foot in each fire,” so to speak.

Survey results suggest that concentration levels are most often low when watching cable news. 20.7 percent of cable news-viewing respondents, or about one in five, said that they “never” or “not often” fully concentrate on the information presented
on cable news. Only 28.7 percent of viewers said that they “always” or “frequently” fully concentrate on the information presented by cable news.

While results indicate that the ticker is a feature that many cable news-viewing respondents (77 percent) pay attention to, it must be noted that the main story is still, in essence, “main.” That is, over two-thirds of cable news-viewing respondents said that they “always” or “frequently” shift their attention between the ticker and the main broadcast based on their level of interest in the main broadcast. Finally, another interesting finding of this survey is that most cable news viewers have an opinion about the ticker. About two-thirds believe, somewhat or more strongly, that it is “helpful and informative;” about one-third at least somewhat or more strongly believe that the ticker is “unhelpful” and a “distraction.”

**Analysis**

This survey provides us with some baseline data about viewers’ uses and gratifications with the cable news ticker. Our results indicate that the average viewer tunes in to become informed, but may not actually pay complete attention to what he or she is watching. Perhaps more importantly, this survey offers us some insight as to how cable news viewers interact with the news ticker. It is clear that different viewers use the ticker in different ways, but we should not underestimate the ticker’s overall importance. After all, less than a quarter of respondents (even when including those who do not watch cable news at all) affirmed that they “rarely make use” of the ticker.
It is also interesting to note the divergent strategies that people have adapted to make use of—or deal with—the ticker. As we have seen, many attempt to “take it all in at once,” presumably keeping their mind in a constant state of flux in order to monitor events both in the main portion of the television screen and in the ticker. Others switch back and forth, but few give all of their attention to one particular news item as they switch; rather, most keep “a foot in each fire.” Though we make no claims as to this convenience sample’s representation of the general public, it may be useful to examine what appears to be a notable divide over the ticker, in which about two-thirds of respondents appreciate it and about one-third of respondents harbor negative feelings toward the feature. It would be worth studying whether these findings would hold up among a larger and completely random sample.

For now, however, we may be satisfied in the knowledge that our survey results support the position that it is logical to conduct the comprehension experiment that shall be described in Chapter 5, for the vast majority of respondents have clearly indicated that becoming informed, not becoming entertained, is their primary motivator for cable news viewing. An experiment designed to evaluate whether viewers are becoming informed will indeed tap in to whether viewers are accomplishing their primary goal in cable news viewing. We turn to that experiment now.
Chapter 5: The Cable News Viewer Comprehension Experiment

If, as the survey analysis in our previous chapter suggests, cable news viewers are tuning in to cable news programs in order to become better informed, we must then ask whether this primary goal is being accomplished. Given our focus on the effects of the news ticker, we must also explore whether the crawl has an impact on the fulfillment of this goal. Additionally, in the context of our theoretical framework, we are interested in whether the supplemental information provided by the ticker creates a situation of information overload whereby a viewer is rendered unable to process the vast amount of information he or she is presented with at one time—the question which lies at the heart of this thesis. We will explore these questions through a cable news viewer comprehension experiment.

Research Question, Hypotheses and Operational Definitions

This thesis’ main research question and hypotheses are as follows:

RQ 5.1: Does the cable news ticker have an impact on viewers’ lasting comprehension of the main (non-ticker) news story?

H1: The cable news ticker has a negative impact on viewers’ lasting comprehension of the main (non-ticker) news story.
H2: The cable news ticker has a positive impact on viewers’ lasting comprehension of the main (non-ticker) news story.
H0: The cable news ticker has no impact on viewers’ lasting comprehension of the main (non-ticker) news story.

For the purposes of this chapter, “lasting comprehension” is operationalized and defined in a very narrow way as “the number of objective, factually-based questions a
viewer answers correctly on a survey about the news program he or she has just watched.” This definition is considered to include understanding, processing and memory—each of which is a necessary component to answering a comprehension question correctly on the post-screening questionnaire that was distributed to subjects. Comprehension levels were determined based on responses to questions with specific, indisputable answers. For example, a comprehension question such as, “When was the last time, prior to the events portrayed in this broadcast, that Israel fired heavy artillery rounds into the Gaza strip?” has a specific answer: 1967. See Appendices C and D for full experimental questionnaire and codebook.

The “main (non-ticker) story” in our research question refers to the top part of the television screen, in which no tickers or banners appear (at least in the media sample used in this experiment). A “negative impact” is established if comprehension levels drop at a rate approaching statistical significance among viewers exposed to the ticker news broadcast in comparison to those exposed to the same news broadcast without tickers.

Because the research within is part of a pilot study conducted with funding limitations, it was not possible to replicate the experiment that this chapter describes across several cable news outlets. Therefore, when we discuss comprehension of “cable news,” we are more specifically discussing comprehension of news presented on the Fox News Channel. While we do not claim that results from an experiment using Fox News Channel can automatically be generalized to the entire strata of cable news channels, it should be noted that, as we saw in Chapter 3, Fox News’ ticker seemed to inhabit a “middle ground” between CNN and MSNBC in terms of overall ticker load, making Fox
an optimum choice for use in our experimental design. Future studies with more resources would be well served, however, to conduct similar experiments with all major cable news channels.

Methodology

Our dependent variable is the comprehension levels (as defined by the number of objective survey questions answered correctly about a news program directly after watching said program) of a convenience sample of 40 Georgetown University Communication, Culture and Technology (CCT) graduate students who agreed to participate in this study. 28 of the students were white. Of the non-white respondents, eight were Asian, one was Middle Eastern and three were African-American. This group of 40 was divided into two sub-groups. Group A watched a typical 10 minutes of Fox News Channel programming. The programming was recorded from 11:26 a.m. to 11:36 a.m. on September 28, 2005. While the day of recording was chosen at random, this ten-minute segment was chosen purposively because: a. it was one of the few ten minute segments recorded that morning that did not feature commercial interruption; b. the segment presented eight main stories, none of which was so long as to dominate the time period; and c. the stories presented during the time period were considered “typical”—that is, stories that appear on a news day neither dominated by one dramatic breaking story nor on an unusually “slow” news day. In general, the stories that appeared during this segment can be labeled under the following general headings: War on Terror, Handover of Control in Iraq, Acela Train Crash, Giant Squid Photos Released, Gaza
Border Violence, Steroids in Baseball, Dead Student Found and California State Vehicles Audit.

Our intervention occurred in Group B, which watched the same cable news segment as Group A, but with a manipulation: a black bar editing out the bottom of the screen (i.e., the part containing the ticker). The ticker itself is therefore our independent variable. Our manipulation was accomplished with the aid of video editing software in Georgetown University’s Gelardin New Media Center. While the only known comparable study presented viewers with a custom-built mock ticker attached to a broadcast that originally contained no ticker (Blain, 2002; Blain and Meeds, 2004), we considered it preferable to use an actual cable news broadcast, complete with its original ticker (which we then edited out for Group B). The latter approach is thought to resemble “real world” ticker usage at cable news outlets more closely than a researcher-designed ticker.

The main antecedent variable was respondents’ estimated average amount of weekly television viewing. Control variables were age, sex and interest in television news. Both groups watched a DVD of the ten-minute news segment in a quiet classroom at Georgetown University and, in an effort to lessen the artificial nature of classroom viewing, were instructed to behave “as they normally would” when watching a cable news program. Some subjects talked to one another during the viewing period (and one delved into his statistics homework, only occasionally looking up at the screen), though most appeared to pay complete attention to the video segment. After viewing the cable news segment, subjects were given a survey that included demographic questions as well
as ten basic comprehension questions. These data were collected over a two-week period, from November 9 to November 23, 2005. Intercoder reliability was conducted by certified paralegal Kathleen Diina and discrepancies were resolved, leading to 100% coder agreement.

While a convenience sample of 40 graduate students may not allow us to draw firm conclusions, it is nonetheless valuable in suggesting potential relationships in the context of this pilot study. No missing values were recorded, as the author was able to verify in person that respondents who left an answer choice blank on the comprehension section of the survey were, in effect, recording a “don’t know/don’t remember” answer. Because memory is a key component of lasting comprehension, no distinction was made between “don’t know” and “don’t remember” on this survey and in our analysis to follow.

Results

Comprehension survey data was analyzed using the SPSS statistical package. After running frequencies, an outlier was found in the age category; one respondent was 42 while all others were between the ages of 22 and 35. However, because age was ultimately not an important predictor in this study, no transformations were performed. Frequencies also showed that 80 percent of respondents were female and only 20 percent were male. This imbalance was roughly in accord with the demographics of the CCT program, which skewed heavily female at the time of the experiment. Frequencies also
showed that the distribution of the dependent variable (comprehension levels) was mostly compatible with the normal curve. See Chart 5-1.

Chart 5-1 Percentage of Respondents Answering Questions Correctly

<table>
<thead>
<tr>
<th>Number of Questions Answered Correctly (out of 10)*</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5%</td>
</tr>
<tr>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>5</td>
<td>15%</td>
</tr>
<tr>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>7</td>
<td>5%</td>
</tr>
</tbody>
</table>

*No respondents answered 8, 9 or 10 out of 10 comprehension questions correctly.

A t-test was conducted to analyze the relationship between the ticker and non-ticker groups. Results indicate that the mean number of correct answers to the comprehension survey was just more than a full question (out of ten) better in the non-ticker group (p<.10). That is, the non-ticker group averaged 4.3 correct answers, while the ticker group averaged 3.2 answers correct. See Chart 5-2.
On the face of it, this seems to support H1, which stated that the cable news ticker would have a negative effect on lasting viewer comprehension of the main news story. These findings also lead us to consider that the ticker may be acting a source of information overload upon the cognitive capacities of cable news viewers. The .094 significance level is worth noting, as it approaches the p< .05 social scientific standard. Recreating this study with a larger sample size might bring this significance level down to .05 or less.
An OLS regression analysis was performed on the data. The above finding is strengthened by a Pearson correlation showing that viewer comprehension and the presence/absence of the crawl are significantly negatively correlated at the .269 level ($p < .05$). Combined with our t-test results, these findings provide us with relatively strong support for our primary hypothesis. None of the control variables’ coefficients in this analysis (interest in TV news, self-estimated amount of television news watched per week, sex and age) reached statistical significance. See Table 5.1.

Table 5.1 *Crawl Significantly Negatively Correlated to Comprehension (Pearson’s r)*

<table>
<thead>
<tr>
<th>Crawl Presence/Absence</th>
<th>TV interest</th>
<th>TV hrs. watched</th>
<th>Age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp. level</td>
<td>-.269*</td>
<td>.122</td>
<td>.121</td>
<td>.096</td>
</tr>
</tbody>
</table>

*p < .05 for Pearson’s r

Given these experimental results, we find moderate support for rejecting our null hypothesis and H2, and for accepting H1. It appears that the ticker may be having a negative impact on viewers’ lasting comprehension of the main news story.

**Analysis**

Despite our small sample size, we have found a notable difference in the comprehension levels among the viewing groups, with the non-ticker group faring a full question better (out of 10) than the control group, and our statistical analysis indicates that the best explanation for this difference is the presence/absence of the crawl. While
further study is clearly needed, this pilot study may be useful in pushing us to ask some important questions about cable news and its use of the ticker.

In a general, comprehension of information presented on cable news was low among both of our viewing groups, a finding that is not particularly surprising in light of prior studies (e.g., Gunter, 1987). It appears that cable news viewers are, for the most part, failing to meet their primary goal of becoming more informed (though we must allow for the possibility that for some, “being informed” is synonymous with being vaguely aware of the day’s top stories, a more broad interpretation of “becoming informed” than we have tested here). The average CCT respondent averaged only 3.7 out of 10 basic comprehension questions correct. In fact, comprehension of cable news information may be even lower than these figures indicate when we take into account several additional factors. For one, viewers in this study watched the cable news segment in a quiet classroom environment. Even though they were instructed to watch the segment just as they would when at home and some did interact with one another, there is little doubt that the absence of potential distractions such as pets, spouses, chores, etc. may have given viewers in this study a chance to concentrate on cable news more thoroughly than the average at-home viewer. In addition, subjects in this study were all graduate students at Georgetown University, and therefore may be presumed to be more educated than much of the general population. This, too, could have inflated comprehension levels beyond what we might find in a more random sample. Due to resource constraints, this limitation was unavoidable, as is the case in many university studies (Sears, 1986).
A third factor that indicates viewer comprehension of cable news may be even worse than it appears within this study is the nature of the survey instrument. Viewers went into the viewing experience knowing that they would be asked questions afterward, and were given the survey directly after viewing the cable news segment. Although a longitudinal study would be necessary to confirm if this is in fact the case, it seems likely that these respondents would remember even less of the cable news information they were presented with as days, weeks or months passed by. Of course, there is also the possibility that comprehension levels could improve if viewers were repeatedly exposed to the same stories over time, which tends to happen with “big stories” on cable news outlets.

We have established a better understanding of what the news ticker is, how it works, how viewers use it and, lastly, how it may be influencing viewer comprehension. Having done so, we turn to some general conclusions and a more overarching theoretical discussion of implications.
Chapter 6: Conclusion and Discussion

Conclusion: An Integration and Summary of Main Findings

Our uses and gratifications data indicates that viewers tune in to cable news primarily to become informed. Our content analysis found that, while there are clear differences between the ticker presentations of the three cable outlets studied (CNN, Fox and MSNBC), all three employ a ticker that is nearly always unrelated to the “main story.” Within our theoretical framework of information overload, we might reasonably expect that such an information presentation would frustrate fulfillment of viewers’ primary goals of comprehension and retention. Indeed, our experimental results show that the presence/absence of the crawl is negatively correlated with viewer comprehension and retention (p< .05), and comprehension levels were worse among viewers exposed to the crawl than among those exposed to the same cable news segment without the crawl (p<.10). Therefore, this study’s most notable conclusion is that while viewers indicate they tune in to cable news primarily to become informed, such a goal is achieved at very low levels, with the crawl apparently worsening the situation. As such, it is reasonable to speculate that cable news viewer comprehension might be improved by a “less is more” approach to information delivery.

Study Limitations

As a pilot study conducted with virtually no funding, this work could be improved in several ways. To begin with, our uses and gratifications and experimental samples
would benefit from the addition of more subjects. Additionally, random sampling would be preferable to the convenience samples included in these portions of the study. Resource limitations prohibited this study from conducting our comprehension experiment across multiple cable news outlets. Doing so, however, could be an important addition to this study. Additionally, while efforts were made to minimize the artificial nature of our experimental design, it would be preferable to record viewers watching television in their own homes and then subject them to the comprehension survey instrument soon after. This would, of course, require more funding and workers than this pilot study could offer.

Lastly, our experimental design could not control for subjects’ preexisting levels of interest in the assorted news stories they were exposed to. Therefore, our findings are limited in their applicability to those who actively seek out news with foreknowledge of what a particular source will provide at a given time. Rather, these findings are more applicable to the cable news viewer who tunes in for a general news update, uncertain of exactly what he or she will be presented with. Despite such limitations, we trust that this study represents the most comprehensive analysis of the uses for—and effects of—the cable news ticker to date.

Potential Areas of Future Study

This study concerned itself with how the cable news crawl affects viewer comprehension of the main story. Future studies might consider whether the main story has an impact on viewer comprehension of the news crawl. That is, we tested only main
story comprehension levels; it would be interesting to explore what news ticker information viewers retain or do not retain. Future study on cable news executives’ and producers’ views on the value of the ticker could provide valuable insight as to how and why the news ticker, once thought to be reserved for emergency situations, has become a ubiquitous feature.

Many crawl items are reported in more depth on cable news outlets’ corresponding Web sites; it would be valuable for researchers to extend our uses and gratifications survey to explore when, why and how often viewers make the jump from cable television news to outlet-affiliated Internet sites based on teased crawl items. Researchers have begun to explore the possibility of an agenda-setting crawl function (Blackmon, et. al, 2004); while this study focuses on form and comprehension rather than subject content, the two must go hand-in-hand if we are to take a holistic approach to understanding the news ticker. Future crawl agenda-setting research might be informed by this study by considering agenda setting not only within the crawl itself, but by considering whether (as information overload theory might predict), the crawl may detract from the agenda-setting power of the main story.

Our uses and gratifications research explores viewers’ feelings toward cable news in general and the news ticker specifically. While our survey took a small step in this direction, future work might incorporate more probing questions as to viewers’ feelings toward the “main story” specifically. Finally, the uses and gratifications portion of our study begins to explore the relationship between viewer education and entertainment during cable news programs. More content-specific questions could be useful in
determining whether cable news is worthy of the derisive “infotainment” label it is often
given without empirical data upon which to rest such assertions (e.g., Patterson, 2001;
Cohen, 2006).

Of particular interest to this author would be any future study that seeks to tap
into cable news’ emotional engagement with its viewing audience. Does the news ticker
detract or enhance one’s emotional engagement with the main news story? While such a
question is beyond the scope of the present study, it is worth speculating on this matter,
which we shall do in our final discussion section.

Discussion

An overly simplistic reading of our findings might be that the crawl is inherently
“bad.” However, we take a more nuanced position, for technology itself is rarely as
problematic as the way in which it is used (Cook, 1996: 166). Therefore, from a media
policy standpoint, we do not advocate for eliminating the news ticker in all situations.
Still, our findings lead us to believe that a much more selective use of the crawl—perhaps
only in times of emergency or for legitimately “big” breaking stories—would be
advisable if cable news outlets care whether their viewers are actually retaining
information rather than simply receiving entertainment. A selective use of the crawl is in
line with the watchdog role of journalism; as Cohen states, a good watchdog barks when
there is a danger “and quit[s] barking when there’s no danger” (Cohen, 2006: 122). With
the ubiquitous news ticker, the watchdog is always barking, thereby detracting from the
meaningfulness of the information conveyed in such a “bark.”
We note that cable news outlets should use the crawl only in certain situations if they care about their viewers’ level of information retention. At this point, it is not clear whether these outlets actually care whether their viewers learn; determining whether this is the case would require extensive interviews with cable news executives, which is beyond the parameters of the current study. Nonetheless, we have reason to doubt cable news’ dedication to fostering viewer comprehension and learning. Consider: When MSNBC and Fox briefly ran the news ticker during commercial breaks (something which cable news outlets continue to do on rare occasions), they “crossed a line” from which they had to retreat partly due to “complaints from advertisers who worried that the flurry of headlines was ruining their message” (McClellan and Kerschbaumer, 2001: 18).

Explaining why CNN decided not to run the crawl during ads, Greg D’Alba, executive vice president of sales and marketing at CNN, says, “We want to keep it an advertiser environment and not detract from the message” (McClellan and Kerschbaumer, 2001: 18). Expressing their opinions of the crawl, numerous advertising agency executives and media buyer executives have decided that the crawl is a distraction that might take away from the impact of the advertisers’ message (McClellan and Kerschbaumer, 2001). If the crawl is believed to distract from advertising messages, might the news ticker also be a distraction that could take away from the message contained within the main news story? Our pilot study suggests that this is exactly what is happening.

Our conclusion calls into question whether cable news outlets are as concerned with their journalistic responsibilities to the public as they are with their business
obligations to advertisers. Advertisers drive the cable news business, and advertisers care about eyeballs looking at television screens, not about comprehension levels or public education via the news. Because of this, it is of the utmost importance for scholars and the public to hold cable news accountable when it abdicates its duty, as outlined by Kovach and Rosenstiel, to provide the news people need to be free and self-governing in a form that maximizes the potential for comprehension and retention. Given our findings, it seems that one way in which achievement of this goal might be furthered could be by removing the crawl from cable news outlets (as we did in our experimental group) during typical news days.
Epilogue

What, then, is to be done?

In addressing this question, we must first acknowledge that solutions involving government regulation are probably not viable due to First Amendment concerns (Geller, 1998). With this limitation, the best chance for the elimination of the crawl in all but emergency or important breaking news situations will come from within the cable news industry itself. In Chapter 2, we noted that researchers should focus on ways in which we might maximize the unique benefits of television news while seeking to minimize that which television news has not done well. This goal is most surely in line with the aims of cable news executives, as well. We might speculate, therefore, on the ways in which a more restrained news ticker usage on cable news outlets could serve to maximize television’s unique strengths.

What Television News Has Traditionally Done Well

In seminal works in the communication field, scholars have noted the importance of understanding which media are best suited to meet which human needs (e.g., Katz, et al., 1973). At the same time, scholars find that when new media appear on the scene, they often begin to blend with older media, blurring the lines between assorted media (Davis and Owen, 1998). We now see this happening with cable news, which has been described as “TV as a Web page” and “the next logical step in an age in which the computer and the TV screen have already done everything but merge” (McClellan and Kerschbaumer,
2001: 16; Steinberg, 2007: B7N). The ideology of the Internet appears to have gained dominance in this unspoken merger, in that most media producers seem to have either consciously or subconsciously decided that “the goal is to give viewers a choice” as to what they are going to pay attention to, sometimes even within the context of a video frame, as the news ticker does when employed in conjunction with the main story (CNN Vice President Sue Bunda, as quoted in Moore, 2001: D7).

However, constantly giving viewers a choice of what to pay attention to may not always be the best route. After all, one of the news media’s primary responsibilities is to edit on behalf of the public, to sort through all the different stories and then focus our attention on those that truly matter (given that most working citizens do not have time to invest in their own carefully thought out compilation of the day’s most important news). By simply handing that choice over to the audience, media producers may feel that they are empowering their audiences, but if the choices become cognitively overwhelming, such a technique is not so much an empowerment of citizens as it is an abdication of journalistic responsibility. In other words, “the fact that some choice is good doesn’t necessarily mean that more choice is better…there is a cost to having an overload of choice” (Schwartz, 2004: 3).

The arrival of the Internet was hailed in part because it is a user-driven, virtual land of infinite choices, and the power lies in the hand of the individual, rather than in a centralized media system. Television producers, at least in the cable news field, seem to believe that the key to success is to replicate this aspect of the Internet. Yet there are powerful reasons not to merge television, and specifically cable news, into an Internet
model. As one author notes, “Lots of viewers even now aren’t comfortable with computers. And maybe even Webheads would welcome a break when they turn on the TV” (Moore, 2001: D7). A break from what? Perhaps from the need to make a seemingly never-ending series of choices. As we embark on a brief exploration of what television news has done well, it will be valuable to keep the decentralized, user-controlled Internet model in mind, for it seems as though this is the model cable news is headed toward currently.

As Buckingham warns, we shall not fall into the pattern of many other cognitive studies of television use by ignoring the emotional impact television can have (Buckingham, 1999). Indeed, research has found that television can engage a viewer emotionally by making events watched feel “real” (Barry, 1997). When it comes to emotions, numerous studies have shown that television is more effective at engagement than print (Brader, 2006; Dahlgren, 1986). Further, television news can present us with compelling footage and thus gain our attention even if we had no prior interest in a subject, unlike newspapers or the Internet, where prior interest is typically required in order for a user to pay any mind to a story (Cook, 1996). In short, one of the main things that television news has done well—or at least far better than other news mediums—is emotional engagement of the viewer, especially in regards to stories that the viewer did not previously “care about.” One has to wonder if the news ticker is therefore detracting from one of television news’ natural advantages, since the crawl contains “information that would seem jarring or silly if spoken aloud in the midst of weighty war events” (Sella, 2001). In other words, could the news ticker decrease TV news’ power of
emotional engagement by dividing a viewer’s focus? Does the unrelated crawl item running across the bottom of the screen on a cable news broadcast say to the viewer, “Meanwhile, life goes on?”

Another of television news’ strong points is its ability to warn people in imminently dangerous situations such as hurricanes, attacks, floods, etc. It has been found that, in order for an already distracted citizenry to pay any attention to the media, the media truly needs to “crank up” its presentation style (Entman, 2004). One of the ways this has been done in the past is with emergency information tickers. One has to wonder how this function will be accomplished when it is next needed. Does the use of the crawl during routine news days make cable news analogous to “the boy who cried wolf?”

“Science-fiction writer J.G. Ballard has a short story in which World War III begins, but no one knows it, because the dispatch of the war’s outbreak is buried in a TV screen full of competing news tidbits and factoids” (Gomes, 2002: A19). Ballard’s fictional world just may be a little less fictional than we previously thought.

Television news has also worked well to raise issues on the public agenda. This has been done primarily by “lead stories,” which researchers have found tend to maintain a hold on the public’s attention more so than any news that follows (Behr and Iyengar, 1985). One has to ask whether a “lead story” can be as effective in a fragmented cable news world wherein viewers are frequently presented with more than one story at a time.

We have discussed many of the roles that television news is uniquely suited to play—emotional engagement of the viewer, emergency warning service and lead story agenda-setter—and we have also discussed how the crawl may limit the fulfillment of
these roles. Yet there are two roles of television news we have not yet discussed that are perhaps the most important, from a societal standpoint, each of which may be severely compromised by the existence of the ubiquitous news ticker: these are the roles of televised news as an anti-venom against “the Daily Me” and as an educator. Before moving forward, we must first understand the concept of “the Daily Me.”

Early in the development of the communication discipline, Lazarsfeld recognized that “people tend to read or listen to the things they agreed with” (as quoted in Starr, 2004: 398). However, until more recent years, media choices were limited, so it was extremely difficult for any person to avoid picking up at least some of the same information as the “mainstream.” In other words, a centralized media system, for all its faults, nonetheless provides populations with a shared set of ideas, languages, motifs and images which can create common ground and stimulate group discourse; without these elements to get us on “the same page,” it is theorized, we risk becoming a nation of self-centered narcissists incapable of engaging one another in real discourse (Sunstein, 2002). This is the threat Nicholas Negroponte realized when he coined the term “the Daily Me” (Negroponte, 1995).

By allowing users to select their own content, the Internet seems to show signs that it may be “the Daily Me” in action. This is not be problematic, however—indeed, the individual freedom the Internet allows should be celebrated—unless other media forms that currently act as inoculations against “the Daily Me” attempt to mimic the Internet. This appears to be what is currently happening to television, with the ticker as just one example of this trend toward impeding television’s unique positive benefits by chasing
after an Internet model. Already, television marketers have begun targeting advertisements to ever-narrowing groups such as those that form clusters on the Internet (Palmer, 2006). Television content is also fragmenting the audience into more specialized groups. Today, only a few major sporting events and entertainment programs can claim a majority of the television-viewing country as an audience, though in 1978, the three television networks (ABC, CBS and NBC) could stake claim to 90 percent of the country’s prime time viewers (Shenk, 1997).

This is why some scholars seem to welcome any program that can draw enough of an audience to allow shared interaction and dialogue; as one group of researchers note, *The OC* may not promote any sort of civic action or values, but at least it provides its young viewers with a common reason to engage each other (Pasek, et al., 2006). While there will always be those who decry television as utterly worthless, scholars who have given much thought to the role of television in society tend to realize that, if nothing else, it has the power to unite us, and that is no small feat in such a large, geographically-dispersed democracy. The words of former Federal Communications Commission chairman Newton Minow ring true; Minow stated that the future could fragment viewership into “smaller and smaller niches, and we need to remember that for all their presumed benefits these developments undermine the simultaneous, shared national experiences that comprise the nation’s social glue” (from Minow’s 1991 “Wasteland Speech,” as republished in Minow and Lamay, 1995: 205).

Further, television can not only give people the chance to come together in bonding experiences, but it may also have the capacity to galvanize citizens about public
events (Fouhy, 1995). This occurs most often when big stories arise; “big” news stories tend to create the most opportunity for shared dialogue (Lawrence and Bennett, 2000). In this sense, the breaking news, round-the-clock coverage of breaking stories on cable news may actually be desirable. However, the crawl is almost certainly not desirable when looked at in this context; it is, rather, a scrolling version of “the Daily Me.” That is, with the advent of the news ticker, even two viewers watching the exact same cable news program can come away with different information sets. “Did you hear about those new sanctions on Iran?” one viewer might ask. The other could reasonably reply, “No, but did you see that they still haven’t decided where to bury Anna Nicole Smith?”

The news crawl caters to “the Daily Me” by, in essence, saying to the viewer, “Don’t like what we’ve got going on here? Why not check this out instead?” Of course, all media ask audiences to employ this surveillance function, but a television screen that divides one channel into multiple information sets creates a situation of hyper-choice, much like the conditions that Toffler warned could lead us to extremely ill informed decision-making or paralysis by analysis (Toffler, 1970).

We must consider that while the crawl may increase the potential that a viewer will stay tuned by offering multiple potential attention targets, it may also potentially reduce the possibility for shared dialogue. The Rolling Stones sang, “You can’t always get what you want to.” The lesson of “the Daily Me” is that you should not always get what you want to if we are going to retain the bonds necessary to remain a healthy democracy. Or, as Wurman notes, “You should never be given exactly what you ask for because you never know the limitations that puts on you” (Wurman, 2001: 120-21). We
adopt a slightly more nuanced position; that is, there is a perfectly good medium for
giving one exactly what one wants called the Internet. There is also a perfectly good
medium—television—for giving one some options while also limiting one’s choices,
thereby keeping the individual in touch with a larger, mainstream community dialogue.
As such, if television conforms to the Internet model, it is important for us to
acknowledge that we may stand to lose as much as we stand to gain.

The Information Illusion

One might argue that the present study beats a dead horse by focusing on viewers’
poor comprehension of televised news. Indeed, the record is not particularly bright for
television’s educational performance. Studies have shown that people typically do not
retain much of the televised information they receive, yet they keep watching—perhaps
because TV does an excellent job of making one feel informed (Buckingham, 1999). But
the past is prelude. Television’s future will be what we make of it, and research does
indicate that viewers can learn from television when they are actually paying attention
(Chaffee and Franks, 1996). In addition, citizen opinions of what is important have been
shown to be affected by television news (Kinder, 2003).

As Gitlin observes, media critics who rail against the evils of television and
television news often fail to take into account how pleasurable the experience of
watching television can be (Gitlin, 2002). If television is to continue to serve as a source
of inspiration for community dialogue, its entertaining qualities must be preserved.
However, in preserving and promoting television’s education and entertainment
functions, there is a danger that we may conflate the two to the point of indistinguishability. It is not such a problem if we do not learn from television, but it is a major problem if we think we are learning from television when we actually are not, which research suggests happens quite often (Hollander, 1995).

Uses and gratifications research distinguishes between “pastime” and “purposeful activity” (Katz, et al., 1973: 511). So must we. If cable news is primarily “pastime,” that is not problematic in and of itself, but it means that we should not delude ourselves into thinking it is “purposeful activity” when in fact it is not.

It is worth noting that early work in the uses and gratifications tradition found that “it is clear that the need to relax or kill time can be satisfied by the act of watching television [and] the need to feel that one is spending one’s time in a worthwhile way may be associated with the act of reading” (Waples, et al., 1940 and Berelson, 1949, as quoted in Katz, et al., 1973: 514). It is in this context that we might consider the ticker on cable news outlets, a feature that combines the two functions mentioned above, perhaps to the effect of entertaining a viewer while at the same time making one feel that one is spending one’s time in a worthwhile manner. The word for this, in regards to news, is “infotainment,” and scholars have lamented the way in which this format blurs the lines of entertainment and education (Patterson, 2001).

Truth be told, however, education and entertainment were never wholly separate to begin with. Before education can take place, curiosity must be stimulated, and this typically requires some degree of entertaining performance or utterance (Wurman, 2001). The problem arises when we are being thoroughly entertained but inadequately informed
and yet think we are getting our fill of the latter, for this can lead to a colossal error—mistaking ignorance for knowledge. As Postman notes, “Ignorance is always correctable. But what shall we do if we take ignorance to be knowledge?” (Postman, 1985: 107-8).

If nothing else, then, this study ought to lead the reader to question whether more information is equivalent to more knowledge in the case of cable news and the ticker or whether, as our experimental findings suggest, the deluge of cable news information has created disservice effects that may best be resolved by subtraction as opposed to addition.
Works Cited


Patterson, Thomas. 2001. Doing well and doing good: How soft news and critical journalism are shrinking the news audience and weakening democracy—And what news outlets can do about it. The Joan Shorenstein Center for Press, Politics, and Public Policy at Harvard University.


References


APPENDICES
APPENDIX A: SUMMARY OF CABLE NEWS TICKER CONTENT ANALYSIS
INTER-CODER RELIABILITY CODING

<table>
<thead>
<tr>
<th></th>
<th>Unrelated to Main</th>
<th>Related to Main</th>
<th>Ticker Item Repeat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 10 Minutes CNN</td>
<td>22 (20)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st 10 Minutes Fox</td>
<td>21 (23)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2nd 10 Minutes Fox</td>
<td>16 (16)</td>
<td>-</td>
<td>11 (11)</td>
</tr>
<tr>
<td>1st 10 Minutes MSNBC</td>
<td>17 (16)</td>
<td>-</td>
<td>3 (3)</td>
</tr>
<tr>
<td>2nd 10 Minutes MSNBC</td>
<td>14 (13)</td>
<td>-</td>
<td>14 (14)</td>
</tr>
</tbody>
</table>

*Intercoder reliability testing yielded a Cronbach’s Alpha of .997.

KEY: Numbers in parentheses represent sum totals of the original coder’s content analysis coding sheet. Numbers not in parentheses represent the sum totals of second coder’s corresponding coding marks.
APPENDIX B: CABLE NEWS VIEWER USES AND GRATIFICATIONS
SURVEY

1. Welcome to the Cable News Survey!

1. I am a:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>63.4%</td>
<td>94</td>
</tr>
<tr>
<td>Male</td>
<td>35.6%</td>
<td>54</td>
</tr>
</tbody>
</table>

Total Respondents 148

2. My age is:

3. My race/ethnicity is:

4. In an average week, I watch cable news for:

<table>
<thead>
<tr>
<th>Duration</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one hour</td>
<td>32.9%</td>
<td>49</td>
</tr>
<tr>
<td>One to three hours</td>
<td>24.2%</td>
<td>34</td>
</tr>
<tr>
<td>Four to seven hours</td>
<td>14.1%</td>
<td>21</td>
</tr>
<tr>
<td>More than seven hours</td>
<td>7.4%</td>
<td>11</td>
</tr>
<tr>
<td>I do not watch cable news at all in an average week.</td>
<td>12.1%</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Respondents 149

5. When it comes to cable news, I am:

<table>
<thead>
<tr>
<th>Interest Level</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not interested</td>
<td>22.9%</td>
<td>34</td>
</tr>
<tr>
<td>Somewhat interested</td>
<td>57%</td>
<td>85</td>
</tr>
<tr>
<td>Very interested</td>
<td>20.1%</td>
<td>30</td>
</tr>
</tbody>
</table>

Total Respondents 149
6. The MAIN reason I watch cable news is that:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>It keeps me informed</td>
<td>55.4%</td>
<td>82</td>
</tr>
<tr>
<td>It entertains me</td>
<td>2.7%</td>
<td>4</td>
</tr>
<tr>
<td>It passes the time</td>
<td>6.6%</td>
<td>10</td>
</tr>
<tr>
<td>It keeps me to participate in conversations about current events</td>
<td>4.4%</td>
<td>5</td>
</tr>
<tr>
<td>I do not watch cable news</td>
<td>18.9%</td>
<td>28</td>
</tr>
<tr>
<td>View (please specify)</td>
<td>14.3%</td>
<td>21</td>
</tr>
</tbody>
</table>

Total Respondents: 148

7. The cable news channel I watch most is:

<table>
<thead>
<tr>
<th>Channel</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNN</td>
<td>51.7%</td>
<td>77</td>
</tr>
<tr>
<td>CNN</td>
<td>4%</td>
<td>6</td>
</tr>
<tr>
<td>Fox News</td>
<td>12.1%</td>
<td>18</td>
</tr>
<tr>
<td>MSNBC</td>
<td>9.4%</td>
<td>14</td>
</tr>
<tr>
<td>I do not watch cable news</td>
<td>18.1%</td>
<td>24</td>
</tr>
<tr>
<td>View (please specify)</td>
<td>6.7%</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Respondents: 149

8. When I watch cable news...

<table>
<thead>
<tr>
<th>Always</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Not Often</th>
<th>Never</th>
<th>I don't watch cable news</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>21% (28)</td>
<td>45% (65)</td>
<td>16% (21)</td>
<td>1% (2)</td>
<td>1% (1)</td>
<td>13% (17)</td>
<td>135</td>
</tr>
<tr>
<td>5% (7)</td>
<td>24% (33)</td>
<td>39% (52)</td>
<td>16% (22)</td>
<td>4% (5)</td>
<td>12% (16)</td>
<td></td>
</tr>
<tr>
<td>1% (1)</td>
<td>4% (5)</td>
<td>12% (16)</td>
<td>29% (38)</td>
<td>14% (17)</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>6% (8)</td>
<td>28% (37)</td>
<td>30% (40)</td>
<td>10% (13)</td>
<td>13% (17)</td>
<td></td>
<td>133</td>
</tr>
<tr>
<td>5% (7)</td>
<td>28% (39)</td>
<td>35% (46)</td>
<td>15% (20)</td>
<td>2% (3)</td>
<td>13% (17)</td>
<td></td>
</tr>
<tr>
<td>1% (1)</td>
<td>4% (5)</td>
<td>12% (16)</td>
<td>29% (38)</td>
<td>14% (17)</td>
<td></td>
<td>125</td>
</tr>
</tbody>
</table>

Total Respondents: 126

9. If you periodically shift your attention between the main broadcast and the crawl, do you rotate your attention based on...

<table>
<thead>
<tr>
<th>Always</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Not Often</th>
<th>Never</th>
<th>I don't watch cable news</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17% (12)</td>
<td>48% (33)</td>
<td>20% (13)</td>
<td>6% (4)</td>
<td>1% (1)</td>
<td>13% (9)</td>
<td>135</td>
</tr>
<tr>
<td>9% (6)</td>
<td>48% (32)</td>
<td>24% (16)</td>
<td>10% (6)</td>
<td>4% (3)</td>
<td>12% (8)</td>
<td>131</td>
</tr>
</tbody>
</table>

Total Respondents: 135
10. Please state your level of agreement or disagreement with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Agree Somewhat</th>
<th>Disagree Somewhat</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>I don't know</th>
<th>Don't Watch Cable News</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I pay attention to the crawl only when I am not interested in the main broadcast story.</td>
<td>6% (8)</td>
<td>25% (34)</td>
<td>26% (35)</td>
<td>17% (23)</td>
<td>10% (13)</td>
<td>2% (3)</td>
<td>2% (3)</td>
<td>12% (16)</td>
<td>136</td>
</tr>
<tr>
<td>The crawl is a helpful and informative addition to cable news broadcasts.</td>
<td>7% (10)</td>
<td>24% (33)</td>
<td>28% (38)</td>
<td>14% (19)</td>
<td>10% (13)</td>
<td>4% (6)</td>
<td>2% (2)</td>
<td>11% (15)</td>
<td>136</td>
</tr>
<tr>
<td>The crawl is an unhelpful distraction that hinders my ability to concentrate on the main broadcast story.</td>
<td>6% (8)</td>
<td>9% (12)</td>
<td>10% (13)</td>
<td>26% (32)</td>
<td>10% (13)</td>
<td>3% (4)</td>
<td>2% (3)</td>
<td>11% (15)</td>
<td>136</td>
</tr>
<tr>
<td>The crawl is a good back-up that I can turn to when I don't care about the main broadcast story.</td>
<td>4% (6)</td>
<td>29% (40)</td>
<td>29% (40)</td>
<td>10% (14)</td>
<td>10% (13)</td>
<td>2% (3)</td>
<td>4% (5)</td>
<td>11% (15)</td>
<td>138</td>
</tr>
<tr>
<td>The crawl is something that I rarely make use of.</td>
<td>4% (6)</td>
<td>7% (9)</td>
<td>15% (21)</td>
<td>21% (28)</td>
<td>20% (26)</td>
<td>13% (17)</td>
<td>2% (3)</td>
<td>11% (15)</td>
<td>136</td>
</tr>
<tr>
<td>In general, cable news provides too many facts without context.</td>
<td>7% (9)</td>
<td>15% (20)</td>
<td>26% (35)</td>
<td>17% (23)</td>
<td>10% (14)</td>
<td>9% (12)</td>
<td>6% (8)</td>
<td>10% (14)</td>
<td>136</td>
</tr>
<tr>
<td>In general, cable news provides too much context without facts to back it up.</td>
<td>9% (12)</td>
<td>8% (11)</td>
<td>24% (33)</td>
<td>18% (24)</td>
<td>15% (21)</td>
<td>7% (10)</td>
<td>8% (11)</td>
<td>10% (14)</td>
<td>136</td>
</tr>
<tr>
<td><strong>Total Respondents</strong></td>
<td>136</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Last one! For the final section of this survey, you will be asked about the AMOUNT of information that news outlets, including (but NOT limited to) cable news, present you with. Please state your level of agreement or disagreement with the following statements. On a typical day...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Agree Somewhat</th>
<th>Neutral</th>
<th>Disagree Somewhat</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with the amount of news that I am presented with.</td>
<td>11% (15)</td>
<td>29% (40)</td>
<td>20% (27)</td>
<td>12% (17)</td>
<td>11% (15)</td>
<td>8% (11)</td>
<td>8% (11)</td>
<td>126</td>
</tr>
<tr>
<td>I am overwhelmed by the amount of news that I am presented with.</td>
<td>5% (7)</td>
<td>12% (16)</td>
<td>15% (20)</td>
<td>15% (20)</td>
<td>22% (30)</td>
<td>21% (29)</td>
<td>10% (14)</td>
<td>136</td>
</tr>
<tr>
<td>The amount of news I am presented with is not enough to keep me adequately informed.</td>
<td>9% (12)</td>
<td>20% (27)</td>
<td>19% (26)</td>
<td>10% (14)</td>
<td>19% (26)</td>
<td>19% (26)</td>
<td>4% (5)</td>
<td>136</td>
</tr>
<tr>
<td>I don't pay much attention to the news.</td>
<td>4% (6)</td>
<td>9% (12)</td>
<td>7% (10)</td>
<td>6% (8)</td>
<td>13% (18)</td>
<td>33% (45)</td>
<td>32% (43)</td>
<td>136</td>
</tr>
<tr>
<td>I intentionally ignore the news.</td>
<td>2% (3)</td>
<td>3% (4)</td>
<td>7% (10)</td>
<td>5% (7)</td>
<td>7% (9)</td>
<td>10% (14)</td>
<td>40% (53)</td>
<td>136</td>
</tr>
<tr>
<td><strong>Total Respondents</strong></td>
<td>126</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. When finished, please click "I'm Done" at the bottom of this screen. If you have any additional comments about this survey or its subject matter, please feel free to include them in the box below. Thank you once again. Your participation is much appreciated.

View Total Respondents: 99
APPENDIX C: CABLE NEWS VIEWER COMPREHENSION QUESTIONNAIRE

IMPORTANT: Please do not leave any of the answer choices blank. Information presented on news broadcasts is not always particularly memorable; if you don’t know an answer, please write “Don’t Know” or “DK” in the space provided for that/those question(s). Please print clearly.

1. I have signed an informed consent form. Circle one: Yes. No. [If no, please ask for an informed consent form at this time. Do not continue with the survey until you have read and signed the informed consent form.]
2. Are you a Georgetown University CCT student? Circle one: Yes. No. [If you circled “No,” please do not fill out the rest of the survey.]
3. I watch approximately ___________ hours of television news per week.
4. When it comes to television news broadcasts, I am [Please check one]:
   ___Very interested   ___Moderately interested   ___Not interested
5. Which Iraqi city did U.S. troops move just outside of in order to be able to “assist Iraqis in a crisis?” ___________________________________________________
6. How many passengers were on the Acela train that crashed? ________________
8. When was the last time, prior to the events portrayed in this broadcast, that Israel fired heavy artillery rounds into the Gaza strip? ______________________
9. According to Hamas, what happened to the truck containing rockets? ___________________________________________________
10. What did major league baseball commissioner Bud Selig tell the Senate committee that he wants to see as a punishment for a player’s second positive test for steroids? ___________________________________________________
11. Fox News states that Sen. Bunting is concerned with steroids in baseball because of what? ___________________________________________________
12. What did Patrick Kycia’s friends say that they saw him doing the night he disappeared? ___________________________________________________
13. Who “calls the splashy headlines” about California’s missing cars “misleading?” ___________________________________________________

15. My demographic information: Age___    Sex_______    Race_________ (Thank you!)
APPENDIX D: COMPREHENSION EXPERIMENT ANSWER/CODING KEY

Acceptable answers to viewer comprehension questions were defined as follows:

1.-4. N/A

5. Karbala.

6. 130.

7. By using underwater cameras tied to fishing lines/hooks. Acceptable answers: underwater cameras, fishing lines, fishing hooks or any combination of these.

8. 1967.

9. Israeli aircraft shot it and blew it up. Other acceptable answers: It was blown up, it was shot, Israel attacked it or a similar combination of these.

10. 100-game suspension.

11. Kids look up to baseball players. Baseball players are roll models. Kids emulate their heroes. Anything that implies similar sentiments by focusing on either children or role models/heroes.

12. Drinking whiskey, drinking, partying.

13. Officials with the Department of General Services. The California Department of General Services. Dept. of General Services. Also accepted: Dept. of Services, officials with the Dept. of Services.

14. The fact that CA state auditors may not be able to find state cars because there is no central database. Any answer that touches upon the fact that the state has no central database is acceptable, with “no central database” or “no database” being the key phrases needed to attain a correct answer.

15. N/A
APPENDIX E: DOCUMENTATION OF FAIR USE REQUESTS AND NOTIFICATIONS FOR USE OF SCREEN SHOTS FROM CNN, FOX NEWS CHANNEL AND MSNBC

From: Mike Keefe-Feldman <mkef27@georgetown.edu>
Sent: Wednesday, April 18, 2007 1:57 pm
To: feedback@foxnews.com
Cc: 
Bcc: 
Subject: Request for academic use of screen shot
Attachments: screen_shot.pdf

4.18.07
To whom it may concern,

One week ago I sent you a request (included once again in the e-mail) for permission to use a screen shot for academic use in my master’s thesis for the Communication, Culture & Technology program at Georgetown University. I have not heard back from Fox News about this request. If I do not hear back from you within a week, I will assume that you consider my use of this screen shot in an academic paper to be a fair use. If you have concerns with this, please let me know as soon as possible.

Sincerely,
Mike Keefe-Feldman
M.A. Candidate, Communication, Culture & Technology
Georgetown University

From: Mike Keefe-Feldman <mkef27@georgetown.edu>
Sent: Wednesday, April 18, 2007 1:58 pm
To: feedback@foxnews.com
Cc: 
Bcc: 
Subject: Request for academic use of screen shot
Attachments: screen_shot.pdf

4.18.07
To whom it may concern,

One week ago I sent you a request (included once again in the e-mail) for permission to use a screen shot for academic use in my master’s thesis for the Communication, Culture & Technology program at Georgetown University. I have not heard back from CNN, Turner or ImagineMedia about this request. If I do not hear back from you within a week, I will assume that you consider my use of this screen shot in an academic paper to be a fair use. If you have concerns with this, please let me know as soon as possible.

Sincerely,
Mike Keefe-Feldman
M.A. Candidate, Communication, Culture & Technology
Georgetown University

From: Mike Keefe-Feldman <mkef27@georgetown.edu>
Sent: Wednesday, April 18, 2007 2:03 pm
To: feedback@msnbc.com
Cc: 
Bcc: 
Subject: Request for screen shot usage in academic thesis
Attachments: screen_shot.pdf

4.18.07
To whom it may concern,

One week ago I sent you a request for permission to use a screen shot for academic use in my master’s thesis for the Communication, Culture & Technology program at Georgetown University. I have not heard back from MSNBC about this request. If I do not hear back from you within a week, I will assume that you consider my use of this screen shot in an academic paper to be a fair use. If you have concerns with this, please let me know as soon as possible.

Sincerely,
Mike Keefe-Feldman
M.A. Candidate, Communication, Culture & Technology
Georgetown University

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