

## Media Use During a Crisis

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**ABSTRACT** *After learning about the crisis of September 11, Americans overwhelmingly turned to television for more information. However, people used multiple sources of information. The Web and e-mail appear to have played important but secondary roles to television and the telephone. Overall, the media functioned well in meeting the extraordinary demands for information and communication.*

**Keywords:** cell phones, crisis, media use, radio, television, Web.

### Introduction

A crisis such as the terrorist attacks on September 11 provides an opportunity to examine fundamental tenets about the functions and use of media in people's lives. What media do people turn to during a crisis? What are the capabilities of different media in meeting the informational and emotional needs of citizens? This paper focuses on end users of media: how people used television, radio, telephones and other media immediately after the terrorist attacks on September 11 and in the weeks following. It also examines the robustness of different media under circumstances of extraordinary demand and the suitability of different media for the types of information and emotional support that people sought during the crisis.

The analysis draws from surveys conducted by the Pew Internet and American Life Project, the UCLA Center for Communication Policy, and Mary Step and her colleagues,<sup>1</sup> as well as published industry data about media traffic and usage patterns. In addition, the author was in the field shortly after September 11 conducting three studies that are relevant to this analysis: a set of focus groups in New York and Los Angeles about TV usage patterns and expectations; an in-home ethnographic study of households with a new digital cable service that included e-mail (some of these households discussed their use of e-mail on September 11); and a telephone survey of satellite radio users who reported on their use of radio news after September 11.

**Media Use and Communication Patterns on September 11***Television Dominates*

September 11 demonstrated the pervasive access to media in modern society and the resulting speed at which news can be conveyed. By one measure, one third of citizens in the Eastern Time Zone knew about the first plane crashing into the World Trade Center by 9 am (the crash occurred at 8:46 am Eastern Standard Time) and 90% knew by 10:30 am.<sup>2</sup> More than half of all Americans learned about the terrorist attacks from television, one in four learned about it from another person, one in six from radio, and only 1% from the Internet.<sup>3</sup> These patterns varied by time zones. On the East Coast, most people learned about the crash from another person, but 22% learned about it from television.<sup>4</sup> This suggests that television is turned on by many people as they wake up and start their day (the first plane hit the World Trade Center at 6:46 Pacific Coast Time). Furthermore, it suggests that television is present in many offices, schools, and public locations such as building lobbies and airports: many of those who learned about the crashes on the East Coast would have been at work or at school between 9 and 10 am.

After learning about the crisis, Americans overwhelmingly turned to television for more information: four out of five Americans turned to TV as their main source of information on September 11.<sup>5</sup> Television provided riveting video and sound throughout the day and in the days that followed. Indeed, many people reported that they were 'mesmerized' by the television coverage and watched all day and into the night, dropping their everyday routines.<sup>6</sup> However, there is more nuance to the communication patterns on September 11 than to simply report that television was the primary source of news. People used multiple sources of information and often used more than one medium at the same time. In focus groups and in-home ethnographic research conducted by the author shortly after September 11, many people reported that they made telephone calls or wrote e-mail while watching TV. They also watched TV in groups, more so than in their regular TV viewing, and talked frequently to others while they were watching. Some people turned on multiple TV sets in the household, each tuned to a different channel so that they could view different perspectives about the crisis. The media composition of many US households supports this form of intensive media consumption. That is, most households have more than one TV and approximately one in four US households have a personal computer in the same room as a TV.<sup>7</sup> In addition, people were aware that September 11 would be a constant topic of conversation with others and wanted to be up on the latest news so that they could participate actively in these conversations. In this sense, the crisis led to a close link between media content and interpersonal communication. Some people also reported a 'surreal' quality to watching TV on September 11. They knew it was real but it also had some visual qualities of a disaster movie and they felt awkward in trying to reconcile these two feelings.<sup>8</sup>

Television watching in the weeks after September 11 continued to involve heavy viewing of news programming, as reflected in the ratings for news channels and news programming.<sup>9</sup> However, in the author's research nearly everyone reported that they wanted regular entertainment programming to return to its normal schedule shortly after September 11. They sought relief and escape from the scary world of terrorism threats that they heard on the news every day. Situation comedies in particular were welcomed. Some predicted that entertainment programming would be impacted by September 11 for months or years, but this was

not the case.<sup>10</sup> Television networks and advertisers were more concerned than the public about potentially sensitive content. Television viewing increased for several days after September 11, with more news watching, but it then returned to normal levels of viewing. Entertainment program viewing was only slightly different in October 2001 compared to October 2000.<sup>11</sup> Attendance at movies actually increased in October compared to a year earlier. These patterns do not suggest that people forgot about the crisis quickly. Rather, they used entertainment to relieve the stress that lingered for months after September 11.

#### *Radio was Important for Mobile Access to News*

People did not turn to radio with the same intensive usage as TV on and after September 11. However, this misses two very important roles that radio played: staying in touch with the latest news while driving and helping to enhance people's moods by listening to music on the radio. In a survey of listeners to a new satellite radio service, people reported that they wanted to have access to news at all times, including while driving.<sup>12</sup> Radio served this function. It provided mobile news access outside the home or office.<sup>13</sup> These radio listeners also reported that radio music helped them to relax and enhanced their mood in a time of national crisis.

#### *The Web: News and E-mail Played Significant Roles*

In examining the September 11 crisis, it is also important to ask, what was the role of the Web as part of the mix of media that people employed? This was the first major national crisis within the United States in which the Web was available to the public. In discussing the use of the Web and e-mail on and after September 11, it is useful to distinguish primary and secondary media sources. The Web and e-mail appear to have played important but secondary roles (to television and the telephone) on September 11. In the Pew survey, only 6% of respondents characterized the Web as their primary news source on September 11. On the day of the attacks, people went to Web news sites in record numbers but had trouble, for a couple of hours, in accessing those sites.<sup>14</sup> Later in the morning, they were able to gain access. CNN.com had 11 million unique visitors on September 11, six times the normal number of visitors, and MSNBC.com had more than nine million visitors, twice its normal traffic.<sup>15</sup> However, in the two months following the attack, visitors to Web news sites were still two to three times normal.<sup>16</sup> In other words, the Web persisted as a source of news about the crisis over time, as television's early advantage in showing video images of the World Trade Center under attack faded somewhat. Over time, more than 50 million Americans used the Web to gather information about the crisis.<sup>17</sup>

In addition to seeking news about the crisis, Web users sent e-mails to friends and family members about the attack, as well as participating in forums and chat rooms about terrorism, and exchanging instant messages in real time. On September 11, much of the e-mail was to check on the safety of friends and family members, to offer or request prayers and to share emotions.<sup>18</sup> Forums and chat rooms were filled with highly charged expressions of anger and fear. There was also a great deal of international traffic, both e-mails to friends and family in the US, as well as expressions of sympathy in forums and chat rooms.<sup>19</sup>

Broadband Web access has been suggested as an alternative to television for moving video images, i.e. video streaming. This did not materialize on September 11. In the weeks following, there was some increased video streaming about the crisis to the desktops of office workers who did not have access to television in their offices.<sup>20</sup> However, September 11 was not a turning point for Web video.

Americans also went to government websites in record numbers on and after September 11. The Port Authority of New York and New Jersey had a 7,000% increase in traffic on September 11–12. The FBI, CIA, NYC Government website and the Federal Disaster Relief Agency also experienced much heavier volume.<sup>21</sup> In addition, the Web was used extensively for charitable giving. Americans donated over \$100 million online for disaster relief in the month following September 11.<sup>22</sup>

There were many reports that people used e-mail as a substitute for telephone calls when they experienced problems in making a telephone call. In the author's in-home ethnographic research, several people reported this behavior. It was also reported that many people used e-mail as a substitute for printed greeting cards in the months following September 11, in response to fears about anthrax contamination in the postal system. Presumably, some people felt that their greeting cards might be accidentally contaminated by anthrax. Further, it was reported that e-mail greeting cards could more easily be customized to add a message about peace and safety in light of the terrorist attacks.<sup>23</sup>

#### *Telephone and Cell Phones Were Used Extensively*

The telephone was used extensively on and after September 11 to check on the safety of friends and family members, express sympathy and exchange opinions about the terrorist attacks. Approximately one third of those who tried to make calls experienced some problems.<sup>24</sup> Cell phones, which like the Internet are a relatively new communication tool for the average person, played a crucial role on and after September 11. First, they provided mobile communication so that people could reach friends and family from locations outside the home and office. Second, they were used for dramatic contacts between office workers trapped in the World Trade Center and loved ones, in some cases to say goodbye, knowing that they would die. Cell phones were also used on the fourth hijacked plane that crashed in Pennsylvania. Passengers on the plane used cell phones and air-to-ground phones to reach friends, where they learned the fate of the other hijacked planes. With this information, they decided to fight the terrorists, costing them their lives as the plane crashed, but preventing a greater tragedy if the plane had gone to its intended target.

#### *Many Symbolic Communications Emerged Spontaneously*

An account of communication patterns on and after September 11 must also consider the symbolic and artistic communications that occurred. After September 11, millions of Americans displayed flags on their homes or attached to the windows of cars. Others purchased and wore hats with emblems of the New York City police and fire departments. In New York City, hundreds of family members of those lost in the World Trade Center posted photographs of their missing loved ones on poles and buildings in lower Manhattan. Later, these communications were collected and displayed as art in New York's Grand Central Station, Union Station in Washington,

DC, and other public buildings. There were many other forms of artistic expression about the tragedy such as concerts, poems, documentaries, photography exhibits, and plays.

### **Media Availability During the Crisis**

In general, media were remarkably robust under the circumstances, but the crisis also revealed in clear terms the relative strengths and limitations of the different media. In New York, the terrorist attacks knocked eight television stations off the air. Thirty years earlier when cable penetration was less than 10% of households, this would have blocked access to television for tens of millions of households. However in Fall 2001, relatively few people received television from over-the-air signals, so the impact was limited. Further, local cable systems received a direct line feed from the stations, so cable transmission of local stations was uninterrupted. In New York and throughout the US, heavy television viewing put no strain on cable and satellite systems, which have a transmission architecture that can accommodate all subscribers at once. This is a distinct advantage of one-way transmission systems.

Television channels responded to the crisis by dropping regular content and shifting to all-news programming on September 11 and for three days following. Some channels with no news capacity carried news feeds from other channels. The season premiers of most shows and major television events scheduled for shortly after September 11, such as the Emmy Awards, were postponed. News channels such as CNN and Fox News carried nearly continuous coverage of the terrorist attacks and related events for weeks following September 11. In this way, the public had robust access to news programming on and after September 11.

September 11 was a major test of how well the Web could handle massive traffic. Some had predicted that the Web would melt under this strain but this was not the case. In the first couple of hours after the attack, primarily from 9:00 to 10:30, major news sites were overloaded and most people could not access them. However, the sites responded quickly by dropping photographs and graphics that put a strain on their servers under such heavy demand. They also added capacity where possible and borrowed servers from other groups within their organizations. For example, ABC.com borrowed server capacity from its sister website, ESPN, assuming correctly that fewer people would be accessing sports information on September 11.<sup>25</sup> The Internet itself handled massive traffic well on September 11. The problem was the strain placed on servers of news websites. The Internet also handled e-mail very well, allowing many people who could not get through on the telephone network to contact family and friends via e-mail.

Government websites also received heavy traffic on September 11. Some were not prepared to respond rapidly to the crisis. First.Gov, the official government portal, had no notices on September 11 about the terrorist attack or how to reach government agencies such as FEMA that had direct responsibility for providing assistance. By the day after, a number of government websites had responded. For example, First.Gov began to direct people to appropriate agencies for assistance and the FBI created a 'Tips' site to seek leads from anyone who might have information about the attacks. The main problem on September 11 was that most government websites did not anticipate a need to place notices on their websites within minutes or hours of a major event such as the terrorist attacks.

Radio shares the same general characteristic of television by transmitting its signal to a virtually unlimited number of receivers within its transmission range. So, there was no strain on its system. Further, nearly all of the 12,000 radio stations in the US responded to the crisis by shifting to all-news coverage on September 11. Many picked up feeds from others stations and re-transmitted them, and most dropped commercials.<sup>26</sup>

The telephone network held up remarkably well under the demands of September 11, even though some Web proponents have tried to paint a bleaker picture, claiming incorrectly that most telephone and cell phone calls to New York were blocked for days.<sup>27</sup> On September 11, a record number of long distance calls were carried by the telephone networks.<sup>28</sup> Even in New York City, where two major telephone central offices, 10 cell towers and 300,000 phones lines were destroyed, more than 100 million calls were placed successfully. When people could not get through, many used e-mail as a substitute. Nonetheless, September 11 demonstrates the limits of two-way switched communications such as telephones and cell phones. They have capacity limits that are strained in a crisis situation.

Damage to the telephone and cell phone networks in lower Manhattan created significant problems for rescue workers on the scene. Interviews with emergency workers after September 11 revealed that they were often without any communication and had to rely on messengers to carry information among rescue units. This happened when many cell phone towers were knocked out and two-way radios were stretched beyond their capacity, as hundreds of rescue workers tried to communicate.<sup>29</sup>

## **Discussion**

The media mix on and after September 11 was complementary and, in some cases, redundant—with one medium filling in when another was unavailable. For example, the Web provided a vital complement to the voice telephone network, through e-mail. In the days and weeks following, the Web allowed people to exchange views with others through forums and get extensive information about the crisis—stored and available whenever they wanted. Other media supported people's information and communication needs in different ways: radio provided mobile access to news and mood enhancement through music; cell phones allowed people to stay in touch with friends and relatives while away from the home or office; and text-based media such as newspapers and news magazines provided longer form articles with more in-depth information for reflective analysis. In this sense, no single medium meets all of the informational, social and emotional needs of citizens during a crisis.

Overall, the media performed well in rapidly informing the public about the terrorist attacks and in continuing to provide information in the days and weeks that followed. The media also met an extraordinary demand as hundreds of millions of people worldwide sought information and wanted to communicate with others. In addition, media served important entertainment functions in the weeks following September 11, providing relief from the scary real world of terrorist attacks. This crisis also demonstrated the need to understand the inter-relationships among media: research may not capture a complete picture of the functions of a medium if it is studied in isolation from other media.

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