

Communicating throughout Katrina: Competing and Complementary Conceptual Lenses on Crisis Communication

Part III—The Future: Hindsight, Foresight, and Rear-View Mirror Politics

Hurricane Katrina was as much a communication disaster as it was a natural and bureaucratic disaster. Communication gaps, missed signals, information technology failures, administrative buffering, turf battles, and deliberate and unintentional misinterpretations delayed and handicapped both the recognition of the crisis that Katrina posed and the response to its devastation. This essay views crisis communication through four conceptual lenses: (1) crisis communication as interpersonal influence, (2) crisis communication as media relations, (3) crisis communication as technology showcase, and (4) crisis communication as interorganizational networking. A conceptual framework is presented that compares these lenses with regard to agency, transparency, technology, and chronology. The planning, response, and recovery stages of the Hurricane Katrina disaster are viewed through these communication conceptual lenses, illustrating key facets of each perspective and adding to our deepening understanding of the events.

Many of the problems we have identified can be categorized as “information gaps”—or at least problems with information-related implications, or failures to act decisively because information was sketchy at best. Better information would have been an optimal weapon against Katrina. Information sent to the right people at the right place at the right time. Information moved within agencies, across departments, and between jurisdictions of government as well. Seamlessly. Securely. Efficiently . . . One would think we could share information by now. But Katrina again proved we cannot.

—U.S. House Select Bipartisan Committee

With the floodwalls gashed and hemorrhaging billions of gallons of water into the city, it was only a matter of a few hours on Monday before the communications citywide began to fail . . . Communication was about to become the biggest problem of the catastrophe.

—Christopher Cooper and Robert Block, *Disaster: Hurricane Katrina and the Failure of Homeland Security*

Truth became a casualty, news organizations that were patting their own backs in early September were publishing protracted mea culpas by the end of the month.

—Matt Welch, “They Shoot Helicopters, Don’t They?”

Hurricane Katrina was and continues to be as much a communication crisis as a natural disaster or governmental fiasco. Massive failures with the operability and interoperability of communications technology have been documented, as have bureaucratic and personal squabbles that prevented or delayed effective preparedness, response, and recovery (Cooper and Block 2006; U.S. House 2006). Likewise, the news media were both a part of the solution and a part of the problem at different times. To put this in perspective, a growing body of scholarship attests to the crucial roles that communication plays in successful crisis management (Berge 1990; Comfort 1994; Coombs 1999, 2006; Garnett 1992; Hale, Dulek, and Hale 2005; Lagadec 1987; Lerbinger 1980; Mitroff and Pearson 1993; Scanlon et al. 1985; Sturges 1994). According to Pijenburg and Van Duin, “Indeed, most of the time crisis situations turn out to be, to a large extent, information and communication crises” (1991, 70). Katrina follows suit, as the quotations at the beginning of this essay reinforce.

This essay addresses crisis communication by identifying and describing four conceptual lenses that are explicit in crises and in the scholarly literature and by applying them to the Katrina crisis. The four lenses are (1) crisis communication as interpersonal influence, (2) crisis communication as media relations, (3) crisis communication as technology showcase, and (4) crisis communication as interorganizational networking. We first discuss the theoretical foundation for

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applying multiple paradigms or conceptual lenses. Next, we examine the conceptual thrust and key themes of each lens, discussing the focal actors, goals, communication mode, key issues, and strengths and limitations of each lens, illustrated through Katrina events. Each lens is also compared with respect to the four variables of agency, transparency, technology, and chronology, again with application to Katrina. We then trace the dynamics evident in these lenses, observing how some lenses mask the value and contributions of other lenses. We conclude by discussing the implications for crisis communication and management within the context of Katrina.

Conceptual Lenses on Crisis Communication

Burrell and Morgan (1979) lay the conceptual foundation for multiperspective thinking with their pathbreaking work on paradigm diversity. The intellectual value of applying paradigmatically diverse models or lenses to the same set of events or phenomena has been demonstrated (Allison 1971; Burrell and Morgan 1979; Garnett 1980; Ritzer 2001; Steinbruner 1974). Multiple perspectives have also been utilized effectively in crisis management research (Bovens and 't Hart 1996; Jarman and Kouzmin 1991; Kouzmin and Jarman 1989; Lalonde 2004; Rosenthal, 't Hart, and Kouzmin 1991). Our article follows this tradition of employing multiperspective thinking to enable different insights.

Scholarly attention to communication as a key element in successful crisis management has focused on different emphases over time and different disciplines. From an extensive review of the scholarly literature in the fields of crisis management, emergency and disaster management, communication, contingency, and strategic planning we have identified four major conceptual lenses through which scholars have examined crisis communication and that have helped shape research and understanding. Figure 1 depicts these four lenses: (1) crisis communication as interpersonal influence, (2) crisis communication as media relations, (3) crisis communication as technology showcase, (4) and crisis communication as inter-organizational networking.

Figure 1 compares these lenses in terms of four dimensions—agency, transparency, chronology, and technology—as well as a set of properties. For our purposes, *agency* is the extent to which focal actors take the initiative for crisis communication, that is, they act proactively rather than reactively (Bovens and 't Hart 1996; Rosenthal and Kouzmin 1997). *Transparency* is the degree to which the actors and actions

described by a conceptual lens are transparent, that is, visible to external stakeholders outside that lens. *Technology* indicates the comparative level of communications technology that predominates in each lens. *Chronology* shows the progression of scholarly emphasis on the four lenses over time. Those higher on chronology received attention earlier.

We discuss these lenses in order of chronology, starting with the first scholarly emphasis and proceeding to the most recent. It should be kept in mind that these lenses are not totally mutually exclusive and fall short of the strict definition of a typology (Tiryakian 1968). Considerable overlapping and blending of types exists in actual crisis management operations. For example, communications technology à la the technology showcase can aid (or inhibit) interorganizational cooperation in crisis response and recovery. These lenses, however, convey different conceptual emphases that enable different insights with implications for crisis theory and praxis. To explicate these conceptual lenses, we use them to view communicating involving Hurricane Katrina, the most devastating natural disaster in U.S. history. By looking at these events through each perspective, we aim to add to our overall understanding of the events that occurred and the lenses themselves.

Crisis Communication as Interpersonal Influence

Before the invention of telephones, radios, or even movable type, crisis communication occurred by word of mouth—neighbor to neighbor, or individual to groups, such as those engaged in rescue efforts. Knowledge of the volcanic eruptions of Thera (ca. 1470 BCE) and Vesuvius (79 CE), the Athens plague (430 BCE), and other ancient disasters comes from limited historical accounts or archeological records. We gain the image, however, of people warning their neighbors about the calamity at hand or those remaining comforting each other face to face. During the Great Fire of London in 1666, King Charles II “joined the firefighters and was to be seen ‘smoke-grimed and ash-covered, handling spade and bucket, his laced coat wet and filthy’” (Kingston and Lambert 1979, 105). Doubtless, he shouted orders or exhortations, as was royal prerogative.

The crisis communication as interpersonal influence lens, the earliest emphasis in terms of practice and scholarship, is recognizable today in terms of the interpersonal dynamics of presidents, governors, mayors, chief executive officers, their top advisors, and other actors involved in crisis. The growing use of crisis command centers and the political

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imperative of leadership being visible in these command centers demonstrate the ongoing importance of the interpersonal influence lens. While mass media and high-tech communications are increasingly being used by government and corporate leaders, much communication surrounding crises even today is face to face, oral, and interpersonal (Comfort and Cahill 1988), whether at the scene of the crisis or in a command or operations center within the crisis team.

A typical scenario in this perspective would have key leaders interacting with a range of advisors, including police and fire chiefs, health and mental health experts, media consultants, technical specialists (terrorism experts, chemical specialists, etc.), and others. The types of advisors would depend on the nature of the crisis to be confronted. The crisis communication as interpersonal influence perspective focuses on how individuals interact with other individuals—whether they are decision makers, neighbors, colleagues, or helping professionals—before, during, and after a crisis. While such interpersonal communication occurs within organizational or even societal contexts,

the primary thrust of this perspective is relating at this most basic level rather than communicating through media, technology, or interorganizational linkages. The communication goals are to direct action through orders or instructions, inform crisis decision makers, and set the tone for handling the crisis.

During Hurricane Katrina, interpersonal communication among top officials and their aides failed to meet these key goals. President George W. Bush and Vice President Dick Cheney were away from the White House and distracted with other issues when Katrina struck. They were not fully engaged agents during the first crucial days. Secretary of Homeland Security Michael Chertoff was preoccupied with antiterrorism goals and was absent during some of the key meetings on Katrina. He and Michael Brown, director of the Federal Emergency Management Agency (FEMA), had a strained relationship before, during, and after that disaster. For days during the heat of response, Brown was isolated in Baton Rouge and stopped answering calls from the Department of Homeland Security. Secretary Chertoff and his “battlefield commander,”

		Agency				
		High		Low		
T r a n s p a r t e n c y	High	Interpersonal Influence Focal actors: Leaders, advisers, top teams, survivors Dominant communication mode: Face to face Key functions: Direct action, inform decision makers, set tone, console and counsel Key issues: Perspective, accountability, groupthink Strengths: Proximity, relevance Limitations: Lack of overall perspective		Media Relations Focal actors: Spin doctors, commentators Dominant communication mode: Mass media Key functions: Promote and protect organizational reputation and interests, disseminate news, gain market share Key issues: Credibility, authenticity Strengths: Reach, visibility Limitations: Distortion, sensationalism, lack of overall perspective	High	C h r o n o l o g y
	Low	Interorganizational Networking Focal actors: Boundary brokers, organizational leaders Dominant communication mode: Boundary spanning Functions: Allocate resources, coordinate action Key issues: Intelligence, competition, “wickedness” Strengths: Cooperative action Limitations: Turf boundaries and battles, bureau-political blaming, time, and stalemate, lack of overall perspective		Technology Showcase Focal actors: CybergEEKs, technocrats Dominant communication mode: IT networking Functions: Demonstrate and validate technology, disseminate information Key issues: Accessibility, overload, technological failure, junk, e-governance, democratic governance versus security Strengths: Speed, uniformity Limitations: Technological failure, communicative redundancy, techno stress, vulnerability and marginalization, lack of overall perspective	Low	
		Low		High	Technology	

Figure 1 Conceptual Lenses for Understanding Crisis Communication

Director Brown, communicated briefly and perfunctorily, having little quality time together. According to the U.S. House Bipartisan Select Committee on Katrina (2006, 2), “These two key players’ failure to communicate is evidence of the profound dysfunction then existing between DHS and FEMA leadership.” These and other top federal officials failed to ask many of the probing questions about preparation and response actions and failed to communicate the proper tone for handling the crisis. Much of the public tone communicated by federal officials was one of “being in control” rather than showing appropriate engagement.

One key goal of the interpersonal influence lens involves directing preparedness and response. In this regard, it is linked with the command and control-oriented rational/centralized approach to crisis management (Caplow 1976; Garnett 1992; Perry 1985; ‘t Hart, Rosenthal, and Kouzmin 1993). The image here is of the top leader orderly conferring with key aides in the crisis command center and giving orders for response operations to police, fire, health, and other workers in the field that implement a rational, comprehensive plan for emergency management. A growing amount of scholarship has emphasized that this rational ideal is more myth than reality (Kouzmin and Jarman 1989; Rosenthal, Charles, and ‘t Hart 1989; Rosenthal, ‘t Hart, and Kouzmin 1991; Schneider 2005; ‘t Hart, Rosenthal, and Kouzmin 1993). More typical, according to this polycentric line of scholarship, is the involvement of multiple, often conflicting actors amid the chaos that crisis inevitably brings.

A key issue with the interpersonal influence lens is how crisis managers acquire and use information to make decisions and the dynamics of crisis decision processes. Much of the scholarly attention in the crisis decision context has focused on groupthink, or “the tendency for premature and extreme concurrence seeking within a decision group” (‘t Hart and Kroon 1997, 102). After analyzing decision making in a number of crisis contexts, including the Pearl Harbor attack, Bay of Pigs invasion, and Watergate, Janis (1972, 1982, 1989) concluded that faulty decision making was the result of too much group cohesion and facilitation rather than too little. This finding is counterintuitive to prior (and still most) scholarship on group dynamics and goes too often unheeded today by contemporary practitioners and scholars who advocate cohesive groups (‘t Hart and Kroon 1997). Groupthink is still a controversial subject after considerable scholarship that has critiqued Janis’s original groupthink theory and framed new theories (‘t Hart and Kroon 1997; Kowart 2001).

From this wide-ranging literature, some important findings emerge. The dysfunctional decision making characteristic of groupthink is connected with insulation from other information and advice, feelings of

group superiority and even infallibility, excessive group loyalty and cohesion combined with insecurity by individual members, dominance by a promotional leader who promotes a position and outcome rather than remaining a neutral facilitator, an organizational culture that promotes team loyalty over independence, short deadlines and high stress, the influence of prior failures, and group willingness and even eagerness “to accept high-risk, even reckless courses of action, ignoring cautionary information and possible moral complications” (‘t Hart and Kroon 1997, 122; see also Schafer and Crichlow 2002). FEMA director Brown’s isolation (physical and administrative), his overconfidence, and his failure to widen his decision circle are indicative of the groupthink that occurred during Katrina. But the decision dysfunctions hardly stopped there: They extended to information bias in the Homeland Security Operations Center (HSOC), the New Orleans’ mayor’s office, and elsewhere. The excessive loyalty within decision-making “camps” and the distrust of officials and personnel from the outside also distorted decision making.

Katrina also spotlighted the less rational, more chaotic flavor of the interpersonal influence lens. Because storm damage eliminated or hindered much available communication technology, interpersonal low-tech communication occurred in unexpected situations. “The information vacuum in the Superdome was especially dangerous. Cell phones didn’t work, the arena’s public address system wouldn’t run on generator power, and the law enforcement on hand was reduced to talking to the 20,000 evacuees using bullhorns and a lot of legwork” (Welch 2005, 16). In another instance, Mississippi local governments kept contact with the state capital by running cars back and forth to relay information on response operations.

In terms of our matrix dimensions, the interpersonal influence lens rates high in agency because actors in this lens tend to be proactively involved with the crisis—whether on the scene or behind the scenes in a command post. In either case, actors and actions in this perspective tend to have higher visibility because of their central and dramatic nature. This lens rates high on chronology, as it is the oldest lens in practice and in scholarly emphasis, but low on technology because the dominant media are face to face and telephone, even though some higher-technology communications media are increasingly utilized. Because presidents, mayors, governors, and other actors associated with the interpersonal influence lens are so prominent, newsworthy, and visible, this lens rates higher in transparency than some other lenses. These focal actors, advisors, consultants, and others involved in small “crisis councils” often reduce transparency in favor of secrecy, especially for certain kinds of crises, such as those dealing with terrorism and national security. The magnitude of death and destruction and

the uproar over the handling of Hurricane Katrina resulted in several intensive official investigations, widespread media scrutiny, and participant catharsis, all of which served to penetrate much of the secrecy that might otherwise have occurred. This extra scrutiny will never close all the information gaps about what happened or failed to happen.

Crisis Communication as Media Relations

This conceptual lens focuses primarily on the roles that media relations, particularly using the mass news media, play in the varying stages and aspects of crises and crisis management. The essence of this lens is captured by an article title, “We have a Problem ... Call the Press!” (Berry 1999). In this lens, crises are seen substantially as media *events* because of the mass media’s tendency to treat crises and disasters as discrete events instead of periodic or even anticipated occurrences within technological, political, ecological, or economic systems (Smith 1992).

Prominent actors in this lens are either commentators and observers who report on crises for news organizations or spin doctors who represent the organizations involved in the crisis to the news media reporting it. Interplay between these sets of actors and among their counterparts in public information and media forms the essence of media relations. Key communication functions in this lens for news commentators and observers are to disseminate information about the crisis; “frame” the crisis for viewers, listeners, or readers; and gain market share within the news industry. Key functions for government, business, or other spin doctors are to protect and promote their organization’s reputation and interests. Katrina, voted the top news story of 2005 by the Associated Press, showcased a broad range of media actors at their best and worst.

The media relations perspective also has multiple strains. One focus of this research involves where citizens obtain crisis-relevant information. While mass media are generally the most cited source of information about disasters within the disaster community itself (Wenger, James, and Faupel 1980), their roles reflect significant variations. Burkhart (1991), synthesizing considerable research on media in crisis, concludes that mass media roles vary by the phase of the crisis. Mass media tend to devote most of their attention to the preparedness/warning and response phases, which have highest drama and newsworthiness. Most of the crisis-relevant media information that citizens receive occurs immediately before, during, and immediately after the crisis. The mass media are found to be most useful in conveying and amplifying alerts from official sources (Burkhart 1991; Comfort and Cahill

1988; Drabek 1986; Perry 1985), providing information and instructions to help citizens prepare for the crisis (Burkhart 1991), and providing news during the acute crisis response phase about the crisis and its impacts (Burkhart 1991; Horsley and Barker 2002; National Research Council 1980).

While much responsible and even heroic journalism occurred during Katrina, too often the mass media failed to disseminate accurate information. This false information hindered efforts at evacuation, rescue, aid, and security. Because of the crisis mentality that prevails, especially during the immediate response phase, the typical media role of independent critical *monitor* is often forgone (Burkhart 1991; Massing 2002; Nacos and Torres-Reyna 2007) and may even result in media-spread rumors (Scanlon 1979).

On September 1, 72 hours after Hurricane Katrina ripped through New Orleans, the Associated Press news wire flashed a nightmare of a story: “Hurricane Evacuation Halted Amid Gunfire ... Shots Are Fired at Military Helicopter.” The article flew across the globe via at least 150 news outlets, from India to Turkey to Spain. Within 24 hours commentators on every major American news network had helped turn the helicopter sniper image into the disaster’s

enduring symbol of dysfunctional urbanites too depraved to be saved ... But the basic premise of the article that introduced the New Orleans helicopter sniper to a global audience was dead wrong, just like so many other widely disseminated Katrina nightmares. No 7-year-old rape victim with a slit throat was ever found, even though the atrocity was reported in scores of newspapers. The Convention Center was not stacked with 30–40 dead bodies nor was the Superdome a live-in morgue. (Welch 2005, 16)

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Because of media coverage of the helicopter rumor, some rescue efforts were abandoned or delayed. The rumor about bodies at the convention center prompted the diversion of a mortuary unit from other collections needed to maintain public health. The vacuum of reliable information spawned rumors that were too often circulated by news media without careful verification. Rumors were even spread by the public officials responsible for handling the crisis:

Mayor Nagin and his police chief Eddie Compass contributed on this score. For days, the two men had been delivering fanciful descriptions to the press of the Superdome and the city at large. Nagin had spoken of the “animalistic” state of

the Superdome's residents, of dead bodies piling up in dark rooms, of killings, rapes, and child mortality. Compass let fly with tales of sustained downtown gun battles, assassination attempts, and other accounts of derring-do. At the Superdome on Wednesday night, Compass sidled up to Phil Parr in tears, "My guys are getting killed out there," he cried. "A girl, a child died in my arms." (Cooper and Block 2006, 193)

Efforts to bring relief and protection to the convention center were delayed until "overwhelming force" was amassed to handle the gangs and violence reported in another Chief Compass rumor. Scarcity of accurate information and the attraction of sensational coverage motivated the media circulation of such rumors. Welch concludes that "truth became a casualty, news organizations that were patting their own backs in early September were publishing protracted mea culpas by the end of the month, and reputation of a great American city has been, at least to some degree, unfairly tarnished" (2005, 18).

Less media attention typically gets focused on the mitigation/prevention and recovery phases because these are longer-term, less dramatic, and deemed less-newsworthy (Ray 1999). During recovery, however, the mass media typically return to their natural adversarial relationship with public officials by focusing on the politics of getting and allocating disaster aid, with some attention paid to the long-range consequences on disaster victims (Burkhart 1991; Pijnenburg and Van Duin 1991). With Katrina, slow, incomplete recovery efforts have continued to draw critical media attention (e.g., *USA Today* 2006), but not as much as during the more newsworthy response phase. One commentator noted that Anderson Cooper was one of few national reporters to return consistently to the Gulf Coast and to continue coverage of the recovery efforts (deMause 2006).

Attention is also given to the role of the media, particularly television, in shaping the way in which other journalists and audiences "frame" the crisis to form the "myth of the story," which, in turn, shapes the way journalists report the crisis and how the public perceives it (Smith 1992). The media framed Katrina in different ways. They first defined Katrina as a natural disaster, although as we have seen, disagreement existed about how severe the disaster would be, while others saw the flooding that occurred after the hurricane as more of a technological, man-made disaster resulting from inadequate levees, pumps, communications technology, and the like. Other media voices saw another kind of disaster. A *New York Times* column on September 8 articulated that the natural disaster had interrupted a social disaster, referring to the broader long-standing social problems plaguing New Orleans (Brooks 2005).

Some media identified the racial consequences of Katrina within days of the hurricane's landfall. Wolf Blitzer, headlining Katrina coverage for CNN on September 1, helped set the tone for this frame when he noted, "You simply get chills every time you see these poor individuals ... so many of these people ... are so poor and they are so black, and this is going to raise lots of questions for people who are watching this story unfold" (Blitzer 2005). Some media coverage deemphasized the racial overtones of Katrina, noting that Mother Nature is essentially color-blind and that the African Americans in New Orleans and vicinity had had the same warning as others. Other "mainstream media did make some effort to engage the issue of race, but the resulting discussions suffered from a reliance on racial stereotypes or failed to move beyond race based human interest stories. There was little critical discussion of how historical patterns of segregation contributed to the racial layout of the city, and how structures worked together to produce racial disparities and economic inequality" (Powell et al. 2006, 60).

Not only was the media preoccupation with race detrimental in its own right, it also distracted attention from other groups that needed help. Gullette decries the lack of media attention to the elderly:

Age has been the most under-reported story of Katrina. The "vast majority" of the 1,322 people who died in New Orleans were old, Martin Smith reported on *Frontline's* November 22, 2005 special on "the Storm"—but *Frontline* gave its shocking statistic only one sentence in an hour-long show. A September 14, *Washington Post* story began "Hurricane Katrina seemed to single out the elderly for particular punishment," but told the story of only one woman. (2006, 103)

Gullette found that the elderly were left on the "periphery" of attention, noting that "media silence has special consequences in an emergency. How many organizations raised money to help elderly people who are impoverished or returning to devastated nursing homes?"

Human interest is a strong news hook for the media during crises. Another way in which the media framed the Katrina disaster was to focus on the condition and feelings of groups and individuals. Katrina had it all—tragedy, bravery, greed, sacrifice, and more. Human interest coverage of Katrina spotlighted people stranded on rooftops or in the Superdome, looking for lost pets, trying to evacuate, or waiting for help in rebuilding. This frame of Katrina endured the response stage and has continued into recovery. A *USA Today* story captured this frame: "The human side of Katrina—tales of agony and misery that thousands of

Katrina's victims still endure a month after the storm—also has gripped many reporters who want to stay on the story indefinitely” (Johnson 2005). This strong identity with the people involved in Katrina produced some first-rate journalism but also may have affected objectivity. Journalistic excess over the Superdome is a case in point.

Another strain of the crisis media literature concentrates on the media's role in enhancing or destroying *personal* or *organizational* reputation. Because few stakeholders view crisis-handling performance first-hand, most stakeholders form their judgments through the mass media. Few people outside New York City remember that Mayor Rudolph Giuliani was plagued with personal and political problems before the 9/11 attacks and was on nobody's list for man of the year. The media images of Mayor Giuliani and President Bush responding to that crisis did much to boost their reputations. Likewise, handling a crisis badly can ruin one's personal reputation and political fortune, as Philadelphia Mayor Wilson Goode discovered following the 1985 MOVE confrontation (Nagle 1991). Media coverage of Katrina clearly damaged President Bush's reputation. One indicator of this is that more critical cartoons were run about President Bush than any other figure in the disaster (Kelly-Romano and Westgate 2007). Homeland security secretary Chertoff and FEMA director Brown also received critical coverage (CNN 2005). To put their bosses and their organization in better media light, Department of Homeland Security employees were told by e-mail to “do whatever they could to make the department look good. What this meant above all was making sure that, whenever the press was around, the Homeland Security agencies were clearly in a leading role. Complicating their task, though, was the fact that other federal departments were also seeking to present a high profile to the TV cameras” (Cooper and Block 2006, 232).

Indicative of the research on maintaining reputation is the emphasis on the consequences of different crisis communication strategies including denial, stalling, deflection/blaming, aggression/counterattack, forming alliances, ingratiation, and acceptance (Sturges 1994; Ray 1999; Booth 2000; Coombs 2006). The blame game started with heavy criticism of FEMA and the feds (CNN 2005; Cooper and Block 2006). To take heat off the federal failures over Katrina, the White House attempted the deflection/blaming strategy. “Administration officials began talking less about what President Bush had called the ‘unacceptable’ federal response in Katrina and more about what local officials might have done to aggravate the problems” (Cooper and Block 2006, 235). Later on, after receiving pushback from Governor Blanco and other Gulf officials, the Bush administration backed off from its blaming strategy.

Partly because it rates higher in both visibility and technology, the media relations lens has received the most scholarly attention of the four perspectives addressed here. The media have greater access to diverse publics and, by their very nature, can even self-promote their role during crises. Visibility and reach are clearly the strengths of the mass media. Because this lens was also one of the first to gain the attention of researchers, it has been able to gain momentum and critical mass (see, e.g., Barton 1993; Benthall 1993; Berge 1990; Burkhart 1991; Nacos 2005; Nacos and Torres-Reyna 2007; Scanlon 1980; Smith 1992). The degree of *agency* typical within the media relations lens is lower than that of the interpersonal influence or interorganizational networking lenses. Media relations still plays more of an observation role on the reporting side and, all too often, on the public relations side as well. A trend toward greater agency within the media relations lens is apparent, however, as both media and organizational actors take more initiative within the crisis communication context. Some reporters and camera operators even rescued people during Katrina. Media figures such as Anderson Cooper were more than observers at times. Increased agency within the media relations lens can produce more probing journalism or more sensationalized reporting, as with the Superdome or convention center coverage. In either case, heightened agency during crises runs the risk of violating norms of “objective” reporting.

While the mass media play some vital roles in crisis management, we argue that research attention has exceeded the actual contribution of the mass media and left other perspectives underresearched and underreported, thus masking the nature and potential of other lenses. The mass media do not typically play the key communication roles in preventing a crisis, mobilizing crisis response, or achieving long-term recovery. The mass media can raise the salience of emergency management in the policy arena (Burkhart 1991), but their inattentiveness to longer-range mitigation and recovery issues lessens this contribution. In addition, the mass media's tendency to be highly critical of government response to emergencies as “nearly inevitable failure” is clearly overstated and counterproductive (Schneider 1992), the colossal governmental failures in Katrina notwithstanding. The mass media are also of limited value in notifying the families of victims and helping rehabilitate survivors (Hodgkinson and Stewart 1991; Myer 2001; Pijnenburg and van Duin 1991; Raphael 1986).

Crisis Communication as Technology Showcase

The technology showcase perspective emphasizes the application of communications technologies, usually advanced technologies, for communicating before, during, and after crises. Crises become opportunities to showcase the capabilities of advanced, virtual

communications hardware and software. Key actors in this lens are the cybergeeks who are conversant with communications technologies and can apply them and the administrative technocrats who supervise them (Jarman 1993; Kouzmin, Jarman, and Rosenthal 1995). Increasingly involved within the technology showcase lens are consultants who supply expertise on an outsourcing basis that governments and businesses are increasingly less able to provide (Korac-Kakabadse, Kakabadse, and Kouzmin 2002).

Attention tends to focus on the capacities of the technologies involved, whether they were applied appropriately, and the results of their use. Illustrative of scholarship on communication technologies includes research on the use of Citizens Band radio (Drabek et al. 1979; Drabek et al. 1981), interactive “talk radio” (Kouzmin, Leivesley, and Carr 1997), telecommunications networks (Chartrand 1985; Giuffrida 1985; Wrobel 1993), geographic and spatial information systems (Jarman 1993; Newkirk 1993; Newsome and Mitrani 1993), decision support systems (Booth 1993; Mitroff 1994; Torrieri, Concilio, and Nijkamp 2002), and e-mail, chat rooms, and Web sites (Fischer 1999). These technologies have been applied to a number of crisis types, including earthquake and volcano detection and behavior, oil spill tracking, disease epidemiology, evacuation tracking, forest fire detection, terrorist dynamics modeling, and emergency response monitoring.

The principal instrumental function within the technology showcase lens is to apply communications technology for better crisis handling, particularly disseminating information relating to mitigation, preparedness, warning, response, recovery, or learning. In many crisis situations, communications technologies are the only feasible way to disseminate information to those on the scene and to those managing and responding to the crisis. Earlier applications of technology concentrated on establishing links outside the disaster area (Drabek 1986; Pijenburg and Van Duin 1991) and among agents involved in crisis handling (Drabek et al. 1979; Pijenburg and Van Duin 1991). This linkage can be invaluable in directing citizen and emergency personnel actions within the disaster area and coordinating responses from outside. A more current application of communications technology is aimed at detecting actual or potential disasters. Remote sensing technology has been used to detect forest fires, earthquakes, hurricanes, and other types of natural disasters. At its most effective, communications technologies allow for more rapid and more uniform communication with the actors who need the information. Certainly, remote-sensing technologies can send warnings from isolated areas where it would be infeasible to have staffed stations or even

regular monitoring. A combination of seismic alert, geographic information systems for locating response and recovery needs and efforts, loss estimation, and other forms of communications technologies used after the 1994 Northridge earthquake in California considerably shortened the time required to implement federal, state, and emergency responses (Comfort 1994).

A corollary function, but one that often seems to take precedence, is demonstrating the efficacy of the technologies themselves. The emphasis on “showcasing” a new communications technology can be expected because it has to gain acceptance before it can be used to benefit either those actors applying the technology or those who have invested in the technology (Newsome and Mitrani 1993). If communications technologies or specific products come under fire as being unreliable or outmoded, showcasing again becomes important. In promoting new or threatened communications technologies, advocates may be tempted to oversell them as “technofixes.” Some of the technology perspective attempts to combat the technofix mentality that is so appealing to many citizens and public officials (e.g., Newkirk 1993; Korac-Kakabadse, Kakabadse, and Kouzmin 1998), while other works foster such a mentality by making overly ambitious claims for technological performance. Despite the lure of a technofix, some scholars of crisis management recognize the limited role of communications technology for crisis management. These limitations focus on overreliance on technology when other communications media would be useful complements—and probably more appropriate—and the failure of technology to work under the conditions encountered.

As with the 9/11 terrorist attacks, the Katrina catastrophe showcased the vulnerabilities of communications technology. While some successes occurred, much of the communications infrastructure was made useless by water, winds, or mismanagement. Landline and cellular telephone service was virtually nonexistent for days because of flooding, power outages, and even theft of equipment. The emergency 911 system was also down in 13 counties (U.S. House 2006). Attempts to get these systems back online were delayed by fuel shortages, conflicting demands for resources, and lack of communication itself. Citizens largely lacked means of communicating pleas for help except in person. The toppling of cell towers, cutting of fiber-optic cables, and other devastation also frustrated relief efforts. Technology failures also hampered the response and rescue efforts. The House Bipartisan Select Committee concluded that “Destruction to communications capability hindered command and control and severely limited situational awareness” (2006, 166).

Some failure to utilize communications technologies had human rather than natural causes. Despite FEMA's promises after the Hurricane Pam exercise, federal communications equipment was scarce during the early days of the Katrina response. Some promised units never materialized, and FEMA kept its high-tech mobile communications truck "Red October" safely in Baton Rouge for several days after the storm hit instead of placing it near city hall, which would have enabled better communication capacity in New Orleans itself. This mobile unit could have helped federal, state, and city officials stay in the communication loop (Cooper and Block 2006). The lack of interoperability of communications technologies used by federal, state, local, and nongovernmental organizations also hampered the response and the identification of resources (U.S. House 2006). In some cases, agencies could not even communicate with their own personnel in different locations, much less across organizations.

At the time Katrina hit, the Homeland Security Operations Center (HSOC) had a budget of \$70 million, a staff of 300 assigned from 45 government agencies, and high-tech computers, monitors, and other equipment, making it the largest 24/7 operations center in the nation. However, HSOC head Matthew Broderick brought a military intelligence background that insisted on detailed information with multiple verifications, thus filtering out some of the key intelligence about levee breaches, the number of people at the convention center, and other situations. Such key information was therefore not reported to Secretary Chertoff and the White House as accurately or as timely as needed despite the abundance of communications technology. For example, a FEMA report estimating the number of flooded homes, the product of cross-hatching census data with remote-sensing imagery, failed to convince Broderick and the HSOC of the severity of flooding (Cooper and Block 2006). Satellite photos from the National Geospatial Intelligence Agency also could not help the HSOC connect the dots. Likewise, the fabled "CEO COM LINK," a high-tech system for connecting top officials with the chief executive officers of Fortune 100 companies, remained unutilized by Secretary Chertoff and HSOC director Broderick at key times during Katrina. Other information, inexplicably, survived Broderick's narrow filter and influenced his thinking and federal action—or inaction:

Late Monday afternoon, the [CNN] network aired a report from New Orleans. The focus of the video snippet was a scene on Bourbon Street, near the highest point in the city, where people "seemed to be having a good time,"

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Broderick said. "The one data point that I really had, personally, visually, was the celebration in the streets of New Orleans ... and they came up with the word 'we dodged the bullet,'" Broderick said. "So that's a pretty good indicator right there." (Cooper and Block 2006, 151)

Ironically, one form of technology that worked during the response to Katrina was text messaging from cell phones. The Association of Community Organizations for Reform Now (ACORN) used text messaging to send messages requesting help around the country and received 200 replies. ACORN set up a message board on its Web site that allowed people to contact one another (Rathke and Laboistre 2006). This is another instance in which communications technology aided interorganizational linking. Because radio, which had proven effective in previous floods (Drabek et al. 1979), was among the few technologies functioning, the Salvation Army, Red Cross, and government agencies deployed amateur radio operators to send and receive vital messages. For example, in Mississippi, FEMA stationed amateur radio operators in evacuation centers, hospitals, and emergency management posts to aid communication (U.S. House 2006, 177). Radio links coordinated through the National Communication System were invaluable for rescue and relief efforts.

The Internet also contributed greatly to the rescue and recovery efforts. At some evacuation centers, people could search Web sites to find missing family members. New Orleans native and Yahoo! chief executive officer David Filo developed a metasearch engine that concurrently searched all sites created to find missing persons. The Web also facilitated fund-raising for recovery. A Yahoo! link for Katrina relief raised \$26 million during its first day (Webster 2006). Many corporations and nonprofit organizations linked to the Red Cross or other relief agencies on their Web sites. Mishra (2006) found that 51 percent of the Best 100 Global Brand corporations had Katrina links on their Web sites and that 86 percent of those companies also contributed to Katrina relief.

In our matrix framework, the technology showcase lens rates lower on both agency and transparency. While technocrats, cybergeeks, consultants, and other lens actors do get involved in crises, that involvement is not as intense or direct as that of actors within the interpersonal and interorganizational lenses. The more remote, sidelines roles of the HSOC and the Red October communications unit illustrate this for Katrina. The role of communications technology has generally been to facilitate flows of information from which crisis decisions are made, while it is interpersonal, face-to-face

communicating that leads to these critical decisions and the implementation actions that result (Korac-Boisvert and Kouzmin 1994; Rosenthal, Charles, and 't Hart 1989). The technology showcase lens is lower in transparency because much of the action occurs out of sight and often beyond the technical understanding of both citizens and public officials. This creates an accountability problem that is magnified when the technical professionals who apply the technologies and the technical professionals who monitor them are increasingly outsourced consultants. Who in the public domain is able to keep these consultants accountable? Downsizing in the public sector has greatly reduced the number of professional specialists within government who can competently oversee such technologically complex applications. This kind of organizational anorexia has left the public sector vulnerable to technical incompetence, mismanagement, and fraud concerning communications hardware and software applications.

Excessively downsized, lean, "anorexic" organizations are more at risk of immediate failures because they lack buffering. Buffering with extra layers, resources, and competencies helps protect an organization's core technology from critical environmental disturbances (Thompson 1967). Without buffering, organizations are more vulnerable to crises. When crises occur, coordinated action is crucial, but it tends to be more nonroutine in overly lean organizations than in buffered organizations (Perrow 1967). Anorexic organizations lack both the resources and the operating routines to cope effectively with crises. The "survivor's syndrome" experienced by many employees left in downsized organizations compounds this problem, as these employees are often already shell-shocked and have a lower morale and sense of trust. The significant cuts in FEMA's budget, staff, reputation, and leadership greatly reduced the agency's capacity to cope with a disaster of Katrina's magnitude. Director Brown testified before the House Select Committee that FEMA had been understaffed and underfunded, had undergone a brain drain, and had become "emaciated" (U.S. House 2006, 13).

The technology lens is among the most recent and has captured much interest. It can provide essential support for the interpersonal, media, and interorganizational lenses but tends to be not as integral to crisis handling as those lenses. The amount of scholarly and practitioner attention it has received appears to be more related to its high-tech appeal and potential rather than to its actual contribution to crisis handling.

Crisis Communication as Interorganizational Networking

The crisis communication as interorganizational networking perspective focuses on written, oral, and electronic communication among government agen-

cies, businesses, police and fire departments, rescue units, hospitals, relief agencies, and other official and unofficial organizations involved in different stages of the crisis. While some illustrations of this perspective are hardly new (e.g., Drabek et al. 1981; Dynes 1978), the interorganizational networking lens tends to be newer and less emphasized in scholarship on crisis communication than the other perspectives. Key actors in this lens are the leaders of the respective organizations and other boundary brokers of organizations like those previously listed. But interorganizational networking also occurs within increasingly utilized crisis teams comprising varying combinations of emergency management personnel, health specialists, scientific experts, and others. Interorganizational networking also occurs among these teams and through their interactions with other networks involved in the crisis (Comfort 1994, 1997a; Comfort and Cahill 1988; Comfort, Ko, and Zagorecki 2004; Rosenthal, 't Hart, and Kouzmin 1991).

The central goals are to allocate resources and coordinate action. Agencies represented in the network have much of the expertise, equipment, and other tangible resources—and often the official authority—to respond to a crisis. Allocating resources for crisis response involves information sharing and often negotiation (Rosenthal, 't Hart, and Kouzmin 1991; Wise 2002). Coordinating crisis operations within the interorganizational lens is viewed less as a centralized command structure issuing orders to operatives in the field than as a complex process of multiple organizations within multiple networks debating options, exchanging information, and negotiating which actions to take. Having the right organizations in the relevant networks and ensuring continuous communication flows within and among these networks have been shown to be crucial to effective crisis handling (Comfort and Cahill 1988; Garnett 1992; Rosenthal and Kouzmin 1997; Wise 2002). Network stability has been linked to crisis management effectiveness. Communication flow can be uncontrolled, sometimes reducing network effectiveness, and more communication volume does not necessarily equal improved communication, especially if it lacks order (Drabek et al. 1981).

During Katrina, the lack of a working command and control system placed extra dependence on interorganizational networking to share information and cooperate on preparedness, response, and recovery. Another of the tragedies of Katrina came when interorganizational networking failed to rise to the occasion. Federal agencies were too seldom on the same page—even agencies within the same department, such as FEMA and the HSOC. Part of this stemmed from technological failure, but, as discussed earlier, it also stemmed from differences in organizational culture and lack of trust that surfaced before Katrina had

even formed. The feds and Louisiana authorities often squabbled (federal relations with Mississippi were better), and municipalities were often left to go their own way, as they did in evacuating people outside New Orleans on their own timetables instead of according to the approved plan. Even the U.S. Coast Guard, often given high marks for its rescue operations, slipped on interorganizational cooperation. According to Cooper and Block, “Throughout the disaster, state and federal agencies worked independently, under their own initiative, sometimes at cross-purposes. The Coast Guard was one of the worst offenders: FEMA officials would later say the agency [Coast Guard] did almost nothing to keep other units up to speed on its activities” (2006, 230).

Several advantages of interorganizational networking for handling crises have been noted. Because of the multiple sets of actors with multiple organizational perspectives and interests, the risk of the faulty, single-minded decision making that is characteristic of groupthink is reduced (Rosenthal, ’t Hart, and Kouzmin 1991). Reliance on interorganizational networks can also make crisis communication more open. By involving more actors—even more sets of actors—in crisis handling, the ability to keep a tight lid on crisis deliberations and interactions becomes more problematic. If some organizations fail to perform as expected within the networks—whether intentionally or unintentionally—other organizational actors tend to articulate dissatisfaction either to the offending organization, to the mass media, or both. Thus, multiple organizational actors can serve as checks and balances within the crisis management process, both in terms of performance and accountability/transparency. Because of these strengths, interorganizational networking has been found to be more appropriate for tackling “wicked” problems (Harmon and Mayer 1986), that is, problems so complex and messy that they defy permanent solutions and require temporary resolution.

During Katrina, other players stepped up to the plate. State-to-state cooperation helped fill some of the void left by federal inaction (U.S. Senate 2006). Texas sent significant levels of emergency responders, supplies, and equipment to Louisiana and promptly paved the way for evacuees in Houston’s Astrodome and other places. Florida, with its highly developed emergency management capability geared especially toward hurricanes, helped Mississippi in similar ways. Rescue and relief personnel, supplies, and equipment also poured in from other states and localities, and businesses and voluntary organizations also helped. The role of Wal-Mart as a logistical supplier of water, generators, and other needed items has been recognized, in addition to the invaluable help received from churches, civic organizations, and other efforts. Operation Brother’s Keeper, for example, used several hundred churches to

evacuate parishioners, many of whom may have been left behind. Much of this help, though valiant, lacked the integration and coordination expected of interorganizational networks.

Key limitations of the interorganizational networking perspective have also been noted. With so many organizational actors in multiple organizational sets or networks, the probability of information slippage or blockage is increased (Garnett and Kouzmin 1999; Rosenthal, ’t Hart, and Kouzmin 1991). Unless network channels are planned thoroughly—and perhaps creatively—withholding of information by one organization can cause disruption in the communication flow among other networks or single organizations that need to act on the basis of that information. The tendency for information to become distorted as it passes through multiple levels and units has also been documented (Downs 1967; Garnett 1992).

In addition to disruptions or distortions in information flow, another key issue for international crisis handling involves *trust*. According to Comfort and Cahill, “In environments of high uncertainty, this quality of interpersonal trust is essential for collective action. Building that trust in a multiorganizational operating environment is a complex process, perhaps the most difficult task in creating an emergency management system” (1988, 184). Differences in values, allegiance, and even language (e.g., jargon) can complicate communication among civilian, paramilitary, and military organizations; routine and emergency response organizations; and even the central headquarters and local units of the same organization (Garnett and Kouzmin 1999; Rosenthal, ’t Hart, and Kouzmin 1991). During a crisis, such differences have “been known to trigger conflicts between communal and official relief efforts as well as true bureaucratic battles between the good Samaritans of various competing rescue and relief organizations” (Rosenthal and Kouzmin 1997, 6).

Key problems within this lens include the tendency for organizational competition and the maintenance of intelligence in the face of sometimes dysfunctional competition. Dysfunctional competition among organizations arises because of competing goals (Lewis 1988; Romzek and Dubnick 1987) or organizational rivalries (Rosenthal and Kouzmin 1997). Interorganizational distrust and rivalry abounded among Katrina actors. Some officials within FEMA considered local emergency managers to be unsophisticated and even called them “goobers,” often treating them with disdain or indifference (Cooper and Block 2006, 73). In the other direction, Louisiana governor Kathleen Babineaux Blanco and other state officials distrusted the feds for trying to take over the crisis and leaving them out. Even the help of U.S. Army Corps of Engineers experts was rejected at a flooding levee because

they were considered outsiders who wanted to take over. Mistrust and rivalry existed, too, within the Department of Homeland Security between FEMA and the Office of Domestic Preparedness over programs and resources. Mayor Ray Nagin and New Orleans officials became suspicious of whether other levels of government were really committed to helping the city. In other instances, trust was extended but misplaced. Trust that FEMA would deliver on its promise to deliver hundreds of buses for evacuation delayed state and local efforts to recruit buses. In the first days, FEMA and the HSOC relied on the Army Corps of Engineers to supply information about the condition of levees, a task falling within the Corps' traditional competence. In this instance, however, the Corps lacked the capability to judge levee condition accurately because it had no air surveillance, satellite photos, or even representatives on the scene. The Corps' credibility was misplaced in this case.

In summary, the interorganizational networking lens has advantages in realism, tendencies toward openness, and the potential for self-correction, although possibilities for corruption, rigidity, and power differences within networks have also been noted (Korac-Boisvert and Kouzmin 1994). The limitations of interorganizational networking lie principally in the potential for turf boundaries and battles and even stalemate during crises. The interorganizational perspective is the least emphasized of the four in terms of crisis communication scholarship. Even though it is high in agency (organizational leaders and boundary spanners are typically active in crises), because it is lower in transparency than the more visible interpersonal influence and media relations lenses, interorganizational networking is still underresearched given its potential.

Implications for Crisis Communication

Examining and unmasking the characteristics of these four lenses leads to the following conclusions.

Conclusion 1. While each conceptual lens competes with the others for attention, each lens also complements the others and makes contributions to the overall knowledge and praxis of crisis communication. Emphasizing multiple lenses reduces the risks that result from applying one lens predominantly. Preoccupation with one lens leads to an incomplete and inaccurate understanding of crisis communication. Both the Senate and House commission reports on Katrina maintained that communication problems were essentially attributable to technology inoperability or, to a lesser extent, interoperability. This view

overlooks or diminishes the multitude of problems of interpersonal conflicts and behaviors, media expediency, and interorganizational culture differences or turf battles. If this posture leads to preoccupation with producing a "technological fix" to prepare communication for the next disaster, multiple problems would remain. For example, FEMA would still have culture clashes with the Department of Homeland Security and would be technology rich and competence poor. Intergovernmental relations would still lack the trust and working relationships that have worked well in the past. The 9/11 and Katrina catastrophes should prevent crisis and emergency management practitioners and scholars from overrelying on communications technology. In both cases, communications technology was destroyed or ineffective to the extent that it often became the problem rather than the solution. Focusing predominantly on the technology showcase lens is equivalent to searching for the "golden sensor." Communications technologies can be made more weather resistant, more interoperable, and more reliable, but they still need to be complemented by a diverse range of high- and low-tech communication strategies and the ingenuity to compensate for communication failures. Americans have been shown to be too fond of technofixes, whether in medicine,

management, or communication. The official post-Katrina investigations indicate that the American national government is still fixated with technology.

When different perspectives complement each other, better results tend to occur. These lenses, used in concert, helped spur the evacuation of New Orleans in spite of official inaction. "All day Sunday, city streets

resounded with sirens and blasts from bullhorns, radio and television stations broadcast scary prognostications, and the word to evacuate rang out from pulpit to podium" (Cooper and Block 2006, 122). These lenses are also necessary to serve as checks on each other. During Katrina, images and information conveyed through the news media often conflicted with the official reports or pronouncements conveyed by official sources using the interpersonal lens. Homeland security officials, for example, reported that adequate commodities were available in the dry areas of New Orleans and that the convention center was swamped with evacuees, even though television images graphically countered the official line.

Conclusion 2. Even though each lens has much to contribute, some lenses have received more attention in praxis or scholarship, resulting in a lack of attention to others and masking their characteristics and potential. Because it rates high in chronology, transparency

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(visibility), and technology, media relations has received far more attention in praxis and scholarship than the other lenses. This attention is out of proportion to its overall importance to actual crisis communication. In terms of chronology, media relations was one of the first emphases in crisis communication and has built on and expanded that emphasis. Because of its nature, media relations is highly visible to crisis decision makers and to the general public. The media also have the capacity to promote their own visibility and salience. Taken too far, this can produce media narcissism. During Katrina as with other disasters, some media coverage helped hold other media sources accountable (Durham 2006), while other reporting was more like following news coverage as a sporting event (Shea 2005). Media specialists on both the reporting side and the public information side need to become more knowledgeable about the other lenses' functions, issues, strengths, and limitations and, in so doing, become less preoccupied with their own media relations perspective.

The interorganizational networking lens, on the other hand, has received less attention than its importance warrants because it rates lower on transparency and technology. A "difficulty dilemma" also exists: Because interorganizational networking has more actors to follow, less familiar dynamics, and is generally more complicated for participants to apply and the public to understand, practitioners and scholars of crisis communication and crisis management forgo attention to it in favor of attention to other, simpler perspectives. Knowledge about interorganizational networks and interorganizational/interagency relations is accumulating, however, and can improve performance for managing crises (Agranoff 2006; Bardach 1998; Crosby and Bryson 2005; Edelenbos and Klijn 2007; O'Toole and Meier 2001).

Based on some of this emerging scholarship, guidelines are taking shape for improving interorganizational networking. Organizations that share crisis vulnerabilities because of geographic proximity, economic or technological interdependence, common meteorological patterns, or political linkages should take the following actions:

- Identify interorganizational networks that are relevant to potential common crises.
- Work out agreements about the purpose of these networks (domain consensus) ahead of time.
- Facilitate interactions among the organizations and people involved in order to develop trust and communication linkages before a crisis hits.
- Maintain continuous communication within and among the organizations in the network.
- Require networks to gain practice in crisis handling through simulations and exercises that involve potential transnational crises.

- Foster improvisation and problem-solving ability through these simulations and exercises.
- Encourage team decision styles and lateral communication flows that are more appropriate to crisis management rather than traditional bureaucratic-hierarchical/command and control styles.
- Use interorganizational networks to make better use of the principal of *concurrency*—acting quickly and collaboratively as the situation requires, then sorting out the jurisdictional tangles later.
- Regularly arrive at mutual agreement about communication channels and flows and review their adequacy.
- Encourage diverse forms of communication: informal as well as formal, external and internal, contextual and synthetic, media driven and network driven.
- Develop ongoing relationships with key mass media players, but avoid relying solely on the mass media as a mode of communication.
- Share knowledge of technologies among partners in the crisis-vulnerable network without relying on technofixes to handle crises.
- Utilize different learning methods for obtaining reflection and feedback from participating organizations in order to correct errors and adjust performance (Comfort 1994, 1997b; Comfort and Cahill 1988; Garnett and Kouzmin 1999; Kiefer and Montjoy 2006).

Conclusion 3. Maintaining accurate perspective is a major problem for all four lenses. All four conceptual lenses emphasize their own perspective. To view the world solely or predominantly through any of these lenses would, therefore, be suboptimizing and miss a larger, more realistic, and accurate perspective of crisis communication and management. The interpersonal influence lens tends toward narrower communication loops and decision circles and even groupthink. The competing and conflicting views of interorganizational actors tend to be missed unless they are brought deliberately and intelligently into the process. The media relations lens is preoccupied with the roles of the mass media in crisis "events" and the actors involved in media relations—reporters, editors, commentators, and those whom they cover. The media lack perspective in that they tend to emphasize the more newsworthy stages of crisis (warning and response) but also tend to leave some of their vaunted independence at home when covering crisis response. The technology lens tends to be intrigued by the power and sophistication of technology and applications rather than viewing technology as a mixed blessing—even a double-edged sword that can produce harm as well as help. A troubling issue is the vulnerability of governments that have outsourced their capacity to utilize crisis communication technology and even to monitor the performance of the vendors and consultants who apply those

technologies. Preoccupation with interorganizational network turf wars and slippages misses the roles that individuals, news media, or technologies play.

Conclusion 4. Transparency and accountability also are challenges for all four conceptual lenses. The low transparency and high technology of the technology showcase lens make it difficult to monitor, understand, and hold accountable. Despite the increasing fixation on technological applications in crisis application and scholarship, the technology showcase lens remains ill understood by scholars and decision makers. Technologies themselves have been showcased, along with the intended results (earthquake or fire detection, survivor location, etc.). The basic assumption in much of the literature is that communications and other technologies are basically good and can help make up for human failings. What is often overlooked is the dark side of information technology (Korac-Boisvert and Kouzmin 1994), which can result in techno-stress, atrophy of human communication, and problems holding technocrats accountable.

The interpersonal influence lens also presents accountability challenges. The actions of government official can be hard to uncover or classify if discovered. Even the scrutiny of the media lens has been criticized in covering recent crises such the 9/11 attacks (Rather 2002). The Bush administration has been criticized for its efforts to manage the news through video releases, payment of press informants, its \$300 million propaganda campaign in Iraq, its attacks on public television and radio, and its efforts to consolidate the news industry (Cooper and Block 2006; Kakabadse, Korac-Kakabadse and Kouzmin 2006, 54). Bagdikian reports “a decline in the number of large companies that control most of the U.S. print, broadcast, motion picture and cable TV media outlets—from 50 corporations, in 1984, then to ten, in 1997, and just five, in 2001—leading to a blatant ‘manipulation’ of news to pursue the owner’s other financial goals” (2001, 43).

Government attempts to control information occurred also during Katrina. For example, New Orleans *Times-Picayune* reporters’ Freedom of Information Act requests to the Environmental Protection Agency for information on environmental health and safety conditions were delayed or ignored (Zarek 2006). In another instance, a FEMA policy prohibiting reporters from talking with evacuees in FEMA-funded trailer parks was changed after pressure from journalists and state legislators (Society of Professional Journalists 2006). On a bigger scale, the reluctance of the Department of Homeland Security, its HSOC, and the White House to believe the news reported on television and radio and propensity to come up with their own sources of information appeared to be efforts to produce the administration’s construction of reality instead of diversifying information sources. A

defining media moment came on September 1 when Ted Koppel asked FEMA director Brown on *Nightline*, “Don’t you guys watch television?” With Katrina, however, the Bush administration’s news management was less successful. The images from television and the print media were so strong and so numerous that they could not be managed. And news came from widely disparate sources. The decentralization of information technology provided multiple ways for Gulf Coast citizens to capture interviews, photos, and other forms of news through phone cameras, video recorders, PDAs, and the like and to disseminate them by e-mail, text messages, Web sites, podcasts, blogs, and other means to the commercial news media, crisis stakeholders, and citizens directly (CNN 2005; Cooper and Block 2006). The scarcity of the federal presence in the Gulf and the difficulty of communicating with federal and other government officials meant that news sources and news technologies became more decentralized. “Until Katrina, the Bush administration successfully relied on its own news-formatted media production to displace the media when it wanted to ... But in the face of Katrina, the Bush news apparatus could do nothing. No Potemkin-like billboard could be posted behind the president to cover the total ruins of the Gulf Coast or the government’s absence from it” (Durham 2006, 83). Some media watchers view Katrina as proving that the news media have reversed their passivity vis-à-vis government. One concluded that “the collective turnaround [of broadcast news] has been nothing short of stunning. The print media also have recovered their snarl and may have helped set the tone” (Shea 2005). How these relationships will evolve in the post-Katrina era is still in question, although the news media appear to have regained some of their mettle.

From the foregoing discussion, guidance emerges for key actors within crisis management and crisis communication. The movers and shapers of crisis and emergency management within the federal government need to avoid a preoccupation with technofixes, which put so much emphasis on communications technology. Preoccupation with command and control decision making, which is characteristic of the interpersonal lens, also needs tempering. Officials and managers at all levels should deliberately combat tendencies toward groupthink by building in different perspectives, consulting widely at different levels, putting performance before loyalty, and taking other appropriate measures. Crisis decision makers and crisis managers at all levels should pay more attention to making interorganizational networking effective rather than contentious and counterproductive. Given the chaotic, multijurisdictional nature of crises, the cooperative interorganizational approach has many advantages but is more difficult to implement. Scholars need to keep producing more useful knowledge in order to make such cooperation work, and

they must be less preoccupied with their media fascination. Systematic efforts by scholars to bridge the different communication perspectives are essential to overcome the present suboptimizing specializations on media, technology, and so forth. In addition to the soul searching the news editors, reporters, and commentators are doing about the journalistic/news successes and failures of Katrina, they need to become less navel gazing and more aware of the other lenses. Public information officers and scholars of crisis communication need to help them broaden their insights.

Viewing crisis communication throughout Katrina from four different conceptual lenses provides a more comprehensive and balanced view than preoccupation with one or two perspectives. Each lens captures different insights, and each lens complements and supplements the insights of other lenses, again demonstrating benefit of a multiperspective approach. Such a multidimensional perspective has salience for understanding other crises as well.

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