Disconnected: ERCOT's Use of Twitter During Winter Storm Uri

By

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Introduction

The power supply is vital to modern societies and is considered one of the most critical infrastructures (Li et al., 2020). When widespread outages occur, they pose a serious risk, impacting almost all aspects of life in developed economies (Rubin & Rogers, 2019). The Electric Reliability Council of Texas (ERCOT) manages the power grid that supplies electric power to more than 26 million Texans, representing approximately 90 percent of the state's electric load (Ercot.com, n.d.).

In February of 2021, a severe arctic weather event known as Winter Storm Uri, caused ERCOT to lose control of the power supply. More than 69 percent of Texans – 4.5 million customers and an estimated 10 million people – were left without electricity in subfreezing temperatures, some for several days (Busby et al., 2021). A series of catastrophic failures in services reliant upon electricity followed. There were water, communication, and transportation infrastructure outages, which in turn impacted emergency services (Pi et al., 2022). Without heat, food, water, the ability to communicate, shop, obtain medical and emergency services, and more, hundreds of people lost their lives. While the State of Texas Department of Health Services put the official death toll at 246 deaths (Svitek, 2022), others contend that more than 750 people died (Aldhous & Hirji, 2022). The storm caused an estimated $130 billion in property damage (Busby et al., 2021).

This case study examines ERCOT's Twitter response to Winter Storm Uri through the crisis communications lenses of the stealing thunder and digital stealing thunder strategies, and Situational Crisis Communication Theory (SCCT). The study utilizes news reports and Tweets from the @ERCOT_ISO account between February 10, 2021, and February 20, 2022, to explore

the company's response in three stages: before, during, and after the crisis. This examination of digital communications surrounding a high-profile crisis event contributes to the existing research literature on stealing thunder, digital stealing thunder, and SCCT while examining the practical value of the strategies and theories for utility companies facing severe weather events.

Background

ERCOT

According to its website, ERCOT is a 501(c)(4) nonprofit corporation that is membership-based. Members include consumers, cooperatives, generators, power marketers, retail electric providers, investor-owned electric utilities, transmission, and distribution providers, and municipally owned electric utilities. ERCOT is governed by a board of directors and subject to oversight by the Public Utility Commission of Texas and the Texas Legislature (Ercot.com, n.d.). ERCOT is unique because it isn't linked to other power grids within the United States. The Texas Tribune's Texplainer summed it up this way, "ERCOT is one of three grids in the Lower 48 states: The Eastern Interconnection, the Western Interconnection — and Texas" (Texplainer, 2011). It was formed in 1970 and remains beyond the jurisdiction of the Federal Energy Regulatory Commission (Texplainer, 2011).

Summary of the crisis

As temperatures plunged into the single digits across Texas during Valentine's week, electric power plants couldn't keep up with demand. ERCOT managers instructed local providers to begin rolling blackouts. However, the outages did not roll or rotate. There was simply no power left after being sent to hospitals, 911 centers, and other key facilities (Meyer,

2021). With no electricity, a cascading effect resulted. Frozen water pipes burst inside homes and buildings. Conversely, to prevent freezing, so many people left their faucets on drip that the water system depressurized and became contaminated, which caused water boil advisories. There were carbon monoxide poisoning incidents and home fires that occurred from those taking extreme measures to warm themselves or heat their homes. Cell phone networks went down, and people were unable to call 911 (Meyer, 2021). As a direct result, 246 people died (Svitek, 2022), and $130 billion in property damage was incurred (Busby et al., 2021).

According to the Texas State Comptroller's website, Winter Storm Uri far exceeded the parameters of ERCOT's seasonal planning, overwhelming the system (Donald, 2021). However, a similar incident occurred a decade earlier. The grid failed following the 2011 Groundhog Day storm (February 2, 2011), revealing its vulnerabilities, and yet recommendations for improvements to protect against catastrophic failure occurring again were ignored (Osborne & Dexheimer, 2021).

ERCOT's official Twitter account, @ERCOT_ISO, indicates it was established in February of 2011. Interestingly, the timing of its account creation coincided with the Groundhog Day storm of February 2, 2011. ERCOT issued its first Tweet on April 21, 2011 (ERCOT, 2011), and continued to utilize the platform thereafter. While massive outages were being experienced during Winter Storm Uri, and while being denounced for its handling of the statewide power outages, the account gained more than 84,000 new followers in a two-day period (Murdock, 2021).

ERCOT'S decision to use the Twitter platform for crisis communications drew criticism (Goldenstein, 2021). Utilized by only 23 percent of the US adult population, Twitter's overall

user numbers fall far below that of Facebook at 69 percent, and Instagram at 40 percent, according to the Pew Research Center (Auxier & Anderson, 2021). However, according to Goldenstein (2021), ERCOT's Tweets were a "central feature of ERCOT's improved crisis communications plan, one that was disseminated to the agency's overseers at the Public Utility Commission about a month in advance of the storm" (Goldenstein, 2021). Others have studied how agencies have used Twitter successfully during crises to steal thunder and enhance two-way communication.

(See Appendix C for a timeline of Winter Storm Uri and selected corresponding @ERCOT_ISO Tweets.)

Literature review

Stealing thunder, digital stealing thunder, and Situational Crisis Communication Theory inform this case study's qualitative analysis of ERCOT's Twitter response to Winter Storm Uri. Many scholars separate crises into three phases: pre-crisis, crisis, and post-crisis. According to Lee & Lee (2021), the pre-crisis phase involves preventing or preparing for a crisis when a negative event related to the organization's behavior reveals a potential crisis. Not all negative events will become trigger events that lead stakeholders to seek causes and attribute responsibility. The ones that do will result in the organization realizing it is in the crisis stage. Once the crisis is resolved, the organization is in the post-crisis phase, with a focus on trying to restore its reputation (Lee & Lee, 2021). The pre-crisis stage aligns with the stealing thunder and digital stealing thunder strategies, while the crisis and post-crisis stages align with SCCT.

Pre-crisis stage: Stealing thunder and digital stealing thunder

Stealing thunder is a crisis communication strategy that has been shown to help minimize reputational damage, by self-disclosing potentially negative information before it is acquired or released by another entity (Williams et al., 1993). The stealing thunder strategy takes a preemptive approach to reporting one's own bad news ahead of others in a crisis (Wigley, 2011). Zhou and Shin found that organizations that self-disclose negative information have higher perceptions of credibility (Zhou & Shin, 2017). They say, "This allows organizations to set the tone of news coverage and frame the information in a positive way. Thus, news reporters are less likely to publish follow-up stories compared to organizations who withheld information" (Zhou & Shin, 2017, p. 43).

Lee & Lee (2021) have studied and found stealing thunder to be an effective pre-crisis engagement strategy with all stakeholder groups in general, saying, "the effects of pre-crisis engagement were stronger when the organization stole the thunder" (p. 1). They say, "when the organization engages with stakeholder petitions in the pre-crisis stage, compared to media thunder, stealing thunder led to lower perceived crisis responsibility, which, in turn, resulted in more favorable attitudes toward the organization" (Lee & Lee, 2021, p. 5).

Arpan & Pompper (2003) looked at stealing thunder specifically within the stakeholder group of journalists. They found the practice might result in enhanced credibility ratings for PR practitioners; however, they cautioned, "proactive crisis communication might signify to the journalist that there actually IS a story or elevate the stature of the story" (p. 301). Perhaps this is why practitioners are hesitant to use it. Yet they conclude, "if stealing thunder results in nothing more than enhanced credibility of practitioners among journalists and continues to avoid

negative outcomes among other audiences, the practice surely seems warranted for both ethical and practical reasons" (Arpan & Pompper, 2003, p. 301).

Digital stealing thunder shifts the focus from the organization in crisis to the stakeholder (Lee, 2020). Unlike traditional stealing thunder, which is designed to protect the entity by releasing information that only it knows about itself, digital stealing thunder clarifies and shapes a reality that the stakeholder may already be experiencing (Lee, 2020). This is critical in navigating crises in today's social media environment to reduce stakeholders' negative impact or perception of negative impact (Lee, 2020). With live streaming and interactive capabilities, the public can view (and self-broadcast) crises and comment on them in real-time, which is much different than legacy media. Because of this, Lee (2020) says that stakeholders must be perceived as active players in the crisis communication process. Lee says this strategy, while challenging because it has a limited response timeline, is ethical and puts the interests of stakeholders first. By interacting with stakeholders in a timely manner throughout crises, Lee says organizations can reduce rumors and the likelihood of alternate narratives. Lee says, "In a time of crisis, stakeholders have the right to receive honest information and the organization has the legal and ethical responsibility to provide factual information promptly, especially when physical or financial injuries are expected" (Lee, 2020, p. 805).

Rubin and Rogers (2109) have studied major power outages to determine if specific interventions or communications from power companies or government agencies had an impact on public reaction. They identified eight key messages that influenced resiliency, reducing the negative impacts of the outage, including the first, "Preparing the public" (p. 5). They said, "Attempts to prepare the public may therefore have the greatest impact if they first emphasize

the reality of the risk" (Rubin & Rogers, 2019, p. 5). In other words, they might be more effective if they "steal thunder."

Brooke M. Fowler (2017) studied how the Howard County Police Department (HCPD) bypassed the media and became its own credible news source, breaking news of an active shooter in the Columbia Mall in Columbia, MD in 2014. Fowler found that "the result of the HCPD stealing thunder appeared to put the department in a better position to address rumors and led to favorable press that praised the department's use of Twitter" (Fowler, 2017, p. 726). Meanwhile, Kinsky et al. (2021) studied how the Federal Emergency Management Agency (FEMA) used Twitter to enhance its two-way communication during the 2017 hurricane season. They found that "most of the tweets had information to help followers with either facts or instructional content to help citizens' self-efficacy, reflecting several best practices in crisis communication" (Kinsky et al., , 2021, p. 9).

Crisis and post-crisis stages: Situational Crisis Communication Theory

SCCT is a dominant theory in the field of crisis communication that pertains to crisis communication during the crisis and post-crisis stages (Lee & Lee, 2021). According to Coombs (2007), SCCT is a framework for understanding and selecting an appropriate crisis response strategy to protect the organization's reputation. However, he notes, "The first priority is to protect stakeholders from harm, not to protect the reputation" (Coombs, 2007, p. 165). Coombs says the SCCT two-part, foundational base response, is an ethical responsibility. The first half of the base response is protecting stakeholders from the physical threat of the crisis, by providing instructing information they can use to stay safe. The second half of the base response is helping stakeholders cope with the psychological threat of the crisis, by providing what Coombs calls

adjusting information. Adjusting information includes expressions of care and concern for stakeholders. It is also used to reassure stakeholders that corrective actions are being taken to prevent future, similar incidents, which reduces psychological stress. The two-part foundational base response should be utilized before SCCT reputation repair strategies, but it's important to express concern for victims throughout all stages of the crisis (Coombs, 2007).

SCCT illustrates how responsibility is attributed to an organization in a crisis (Coombs & Tachkova, 2022), and shows that acceptance of that responsibility can help minimize damage (Coombs, 2007). It classifies crises into three types of crises or "clusters": victim, accidental, and intentional. The victim crisis cluster includes natural disasters, evoking very little crisis responsibility. In contrast, the intentionally caused or preventable crisis cluster engenders the strongest attributions of crisis responsibility (Coombs & Tachkova, 2022). In SCCT, responsibility for a crisis is linked with organizational reputation. Coombs and Tachkova say, "The more crisis responsibility is attributed to an organization, the more severe the reputational damage it will suffer" (Coombs & Tachkova, 2022, p. 3).

Winter Storm Uri may be categorized into two crisis clusters. It was a weather-related natural disaster, which is difficult to control, and falls in the victim crisis cluster. But the sustained outages were related to management, and thereby preventable, as evidenced by two similar winter storms. Veil et al. (2016), noted, "We know from the extensive research on SCCT that crisis history increases the attribution of responsibility in a crisis and can have a Velcro-like effect by snagging additional reputational damage" (p. 328).

Recommended improvements weren't made following a 2011 grid failure (Osborne & Dexheimer, 2021). However, a 1989 Texas freeze that occurred days before Christmas had a

different outcome. Except for a two-hour window when utilities rotated outages, the power stayed on. At that time, the Texas power market operated under a traditional utility model that regulated monopolies. James Osborne explained, "Each time utilities built backup generation to handle periods of extreme demand, they received a healthy rate of return, even if the plants sat idle nearly all the time." In the late 1990s, the Texas Legislature shifted to a free market system (Osborne, 2021). Osborne said, "generators are paid based on how much electricity they sell, and prices determined by what retail power providers such as Reliant or TXU Energy are willing to pay on a given day" (Osborne, 2021).

The effects of these policy, infrastructure, and management decisions following the 1989 and 2011 Texas freezes additionally place this case, and ERCOT's handling of it, in the intentional or preventable crisis cluster. Coombs says, "A crisis will create negative affect, especially the intentional crisis cluster. Stakeholders become angry and may even enjoy seeing the organization suffer" (Coombs, 2007, p. 172). Coombs says that increased attributions of crisis responsibility generate "schadenfreude" (drawing pleasure from the pain of others) toward the organization (Coombs, 2007).

Other research that has looked at crisis communication strategies when the crisis involved both the victim (weather) and preventable crisis clusters, includes Kriyantono and McKenna's 2019 study surrounding the Air Asia crash of December 28, 2014. They say, "The research findings have confirmed that a company that has two crisis clusters should choose the appropriate crisis response strategy in accordance with the type of the cluster which has widely grown in the public domain" (Kriyantono and McKenna, 2019, p. 233). How the public attributes

responsibility is the SCCT cause that should be selected, along with its corresponding response (Kriyantono & McKenna, 2019).

Coombs' (2007) says there are three objectives for crisis response strategies. They include shaping attributions, changing perceptions, and reducing the negative effect of the crisis (Coombs, 2007, p. 171). The three response strategies Coombs (2007) describes include deny, diminish, and rebuild. Fussell Sisco, Collins, and Zoch (2009) describe Coombs's strategies further. The deny strategy recommended for use in a victim crisis cluster, has the lowest level of responsibility attribution. It might include denying any perceived connection between the organization and crisis, attacking the accuser, and scapegoating.

In an accident crisis cluster, Coombs recommends the diminish strategy, which might include excusing and justifying the organization's actions in the crisis. In a preventable crisis cluster with the highest level of responsibility attribution, Coombs recommends the rebuild strategy for reducing the negative affect. This includes what Coombs calls adjusting information, or expressing concern for victims (Coombs, 2007). He says, "Expressing concern for victims (adjusting information) and reinforcing this compassion through compensation and/or a full apology serve to blunt feelings of anger" (Coombs, 2007, p. 172). (See Appendix B for the SCCT crisis response strategy guidelines.)

Method

Research questions

1. Which aspects of stealing thunder and digital stealing thunder did ERCOT use on Twitter during the pre-crisis stage of Winter Storm Uri?

2. Which aspects of Situational Crisis Communication Theory did ERCOT use on Twitter during the crisis and post-crisis stages of Winter Storm Uri?
3. How did users interact with ERCOT statements on Twitter?

Methodology

This study utilized a case study methodology. In this method, a single case (or a limited number of cases) is studied intensively using multiple methods of data collection and analysis and often presented in narrative form (Ylikoski & Zahle, 2019). Yin (2014) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon (the case) in depth and within its real-world context" (p. 16). Ylikoski & Zahle (2019) say the focus of study selected for a case is wide-ranging and flexible, explaining, "What is crucial is that it is somehow a bounded concrete item that is an example of something more general. In other words, it is a case of something" (p. 2). They say that item might be any number of things, including an organization, a social policy, a successful or failed campaign, or a crisis (p. 1-2). The latter was applied in this research, treating Winter Storm Uri crisis as a unit of analysis. While it examined Winter Storm Uri predominantly as a public relations issue for ERCOT, the use of digital media employed by ERCOT during the crisis means Winter Storm Uri was approached as a digital media crisis communication case study as well.

Case study methodology has been utilized to examine other crises and corresponding crisis communication. One such example is a case study by Zafra and Maydell (2018), which looked at the crisis communication surrounding the 2014 disappearance of Malaysia Airlines' flight MH370, with 227 passengers on board. Another such example is a case study by Irlbeck et

al. (2013), which examined the crisis communication efforts of public relations practitioners in the peanut industry during the 2009 Salmonella outbreak to determine effectiveness.

Sample and operationalization

Academic-level access to the Twitter 2.0 API, the academictwitteR package (Barrie & Ho, 2021) for R (R Core Team, 2013), and a custom R script was used to collect all available Tweets, Retweets and Quoted Tweets posted by @ERCOT_ISO. They were manually sorted to include an examination of Tweets in this timeframe:

- Pre-crisis – February 10-13, 2021
- Crisis – February 14-20, 2021
- Post-crisis – February 21, 2021 – February 20, 2022 (End of crisis through one-year anniversary of the end of crisis).

The Tweets related directly or indirectly to Winter Storm Uri were manually filtered out for analysis to answer this study's research questions.

Operationalizing Research

- All times referenced are Central Standard Time, expressed in the 24-hour clock or military time format.
- Twitter was rebranded as "X" in 2023. For this study, it will be referred to as Twitter since that was its name at the time of the event.
- To determine the most engaging posts, this study used the sum of the Retweet count and the quote count. This study called this total the "Engagement score" (Twitter.com, 2023).

This study utilized a qualitative thematic content analysis. According to Delve et al. (2023), qualitative content analysis is a research method that provides a systematic way to analyze and interpret the content of various forms of communication. They say, "It provides a systematic way to identify patterns, concepts, and larger themes within the data to gain insight into the meaning and context of the content" (Delve et al., 2023). Using the content analysis method, ERCOT's Winter Storm Uri-related Tweets were analyzed in the pre-crisis, crisis, and post-crisis stages to determine how well they aligned with stealing thunder, digital stealing thunder, and SCCT recommendations or themes. The responses of the most engaging posts in each of the crisis stages were also analyzed to determine sentiment and responsibility attribution.

ERCOT posted 68 total Tweets throughout the event, 51 of which were determined to be directly or indirectly related to Winter Storm Uri. All 17 of the unrelated Tweets were posted during the post-crisis stage. The related 51 Tweets were analyzed in each crisis stage based on the seven themes identified in stealing thunder, digital stealing thunder, and SCCT. The seven themes are:

1. Self-disclosure
2. Instructing
3. Adjusting
4. Deny
5. Diminish
6. Rebuild
7. Bolstering

Tweets in the pre-crisis stage, from February 10-13, 2021, were analyzed to determine how well they aligned with the theme of self-disclosure recommended by stealing thunder and digital stealing thunder. Tweets in the crisis and post-crisis stages, from February 14, 2021-February 20, 2022, were analyzed to determine if they utilized any of the six themes identified in SCCT, which are instructing, adjusting, deny, diminish, rebuild, and bolstering. They were further analyzed to determine if the theme matched the correct SCCT crisis type. As previously mentioned, SCCT is a tool to select the appropriate crisis response strategy based on crisis type. Based on history, this analysis assumes that ERCOT knew in advance that widespread, extended power outages were likely, placing it in the SCCT preventable crisis type. Because of this, greater scrutiny was given to the instructing, adjusting, rebuild, and bolstering themes prescribed by SCCT for a preventable crisis.

The following table further describes each theme, which theory or theories it correlates with, which crisis stage or stages it should be used in, and when it should be used.

Table 1 - Theories, themes, and recommendations for use

Crisis stage(s)	**Theory/Theories**	**Theme/Crisis Response Strategy**	**When to Use and/or Crisis Type**
Pre-crisis	Stealing thunder, digital stealing thunder	**Self-disclosure** • Stealing thunder – Self-disclose negative information about the organization ahead of others.	Counterintuitive but almost always advised.

		• Digital stealing thunder – Information that is self-disclosed should be stakeholder-focused, honest, factual, and prompt, to prepare the public by emphasizing the reality of the risk.	
Crisis	SCCT	**Instructing** • Foundational, ethical responsibility. • Protect stakeholders from the physical threat of the crisis.	• This is one-half of a base response that should be used for all crisis types. • Should be used with adjusting information before other SCCT themes.
Crisis, Post-crisis	SCCT	**Adjusting** • Foundational, ethical responsibility.	• This is the second half of a base response that should be used for all crisis types.

		• Help stakeholders cope with the psychological threat of the crisis. • Includes expressions of care/concern and corrective actions that will prevent future incidents.	• Should be used with instructing information before other SCCT themes.
Crisis, Post-crisis	SCCT	**Deny** • Primary reputational repair strategy. • Includes attack the accuser, denial, and scapegoat strategies.	Advised for use in the victim crisis type.
Crisis, Post-crisis	SCCT	**Diminish** • Primary reputational repair strategy. • Includes excuse and justification strategies.	Advised for use in the accidental crisis type.
Crisis, Post-crisis	SCCT	**Rebuild** • Primary reputational repair strategy.	Advised for use in the preventable crisis type.

		• Includes compensation and apology strategies.	
Crisis, Post-crisis	SCCT	**Bolstering** • Secondary reputational repair strategy. • Includes reminder, ingratiation, and victimage strategies.	• Advised for use as a supplement to the three primary strategies (deny, diminish, rebuild) and adjusting information.

Sources: Stealing thunder adapted from Williams et al. (1993), digital stealing thunder adapted from Rubin & Rogers (2019), SCCT adapted from Coombs (2007).

Results

Pre-crisis – February 10-13, 2021

There were three ERCOT Tweets posted during the pre-crisis stage, a three-day period when the stealing thunder and digital stealing thunder strategies could have been utilized. The first, posted on February 10, 2021, provided a link to the previous month's Demand and Energy Report (ERCOT, 2021a) and was unrelated to the coming storm. The second and third Tweets of this stage were both posted on February 11, 2021. The first, posted at 12:50, promoted ERCOT's app where consumers could monitor grid conditions (ERCOT, 2021, b). The final pre-crisis Tweet was sent less than 90 minutes later at 14:18 and was the only one directly related to Winter Storm Uri. Its image was a text graphic that said, "Record demand expected during cold weather event" (ERCOT, 2021c). Its accompanying text description said, "Extreme cold weather

expected to result in record electric use in ERCOT region" (ERCOT, 2021c) and linked to a news release with the same heading on the ERCOT website. The subheading of the news release was, "Consumers can stay current on grid conditions by downloading the ERCOT app and following ERCOT on Twitter" (Ercot.com, 2021). It said that with the forecasted cold weather, increased and record electric demand was anticipated. Consumers were told to monitor grid conditions on ERCOT's app and on Twitter. The second-to-last paragraph of the release (fifth paragraph), said, "Generators have been asked to take necessary steps to prepare their facilities for the expected cold weather, which includes reviewing fuel supplies and planned outages and implementing winter weatherization procedures. The grid operator is also working with transmission operators to minimize transmission outages that could reduce the availability of generation or otherwise impact the ability of the system to serve demand" (Ercot.com, 2021). It had the highest engagement score of the pre-crisis Tweets, which was 98. Many of its comments weren't generated until the crisis stage. Most had an angry tone and attributed responsibility for the outages to ERCOT. Here are some selected examples (ERCOT, 2021c):

> February 14, 2021
>
> 16:01 @guvatz (Sordum Guvatz): "Fuk off! Do a better job d-bags! Are you kidding me? Turn down MY heat? Is that what I pay for? Is this America? F off. What an outrageous request."
>
> February 15, 2021

10:48 @HRocketsfan (Bears Beets Battlestar Galactica): "So what was done in preparation? Cause we are suffering now and apparently you had an idea of what this was going to look like. So again what prep work was done to maintain power for texas?"

14:32 @enderandpeter (Enderandpeter): "Oh you knew this four days ago? Then why were you caught by surprise?"

Feb 16, 2021

09:56 @ZiziMnz (Suzy Munoz-Gonz): "No (IMAGE: Poop emoji with grimacing expression)? And you still failed, unacceptable!!!!"

Feb 17, 2021

10:38 @LB_not2day (laura Botello): "people died because you left them with no power for 40Hours"

23:31 @3perkinskids (Kelly Perkins) "You predicted the cold but did nothing yourself to prepare. Making sure to take screen shots of this crap for future use."

During the pre-crisis stage, ERCOT failed to disclose the high likelihood of widespread, extended power outages as recommended in stealing thunder. Its mentions of outages described them as "planned," which was the best-case and most hopeful, but unrealistic scenario. It downplayed the threat, burying the warnings where they were likely to go unseen. Furthermore, they were phrased in grid-related jargon and did not clearly convey the implications for consumers.

Crisis – February 14-20, 2021

There were 30 Tweets posted in the crisis stage, which began on Valentine's Day, 2021, and covered a seven-day period. The storm hit on February 14th, with widespread power outages occurring just after midnight on February 15th. The foundational, ethical response that should always be utilized for all crisis types in this period according to SCCT, is twofold. It includes providing instructing information to protect stakeholders from the physical threat of the crisis. It also includes providing adjusting information to help stakeholders cope with the psychological threat of the crisis, such as expressing care and concern for victims (Coombs, 2007).

ERCOT's first six Tweets during the crisis stage were all posted on the first day of the crisis. The first four were energy conservation appeals that seemingly were intended to be lighthearted or humorous. All included the hashtag #conserve. Some paired that with other hashtags that also seemingly were intended to be humorous. While energy conservation helps to protect the grid, and conservation appeals might therefore be considered instructional, ERCOT's conservation appeal Tweets did not convey the seriousness of the situation. They failed to inform or warn stakeholders of likely or imminent outages. They did not include information or point stakeholders to resources that might have helped protect them from the physical threat of the crisis. These are ERCOT's four lighthearted conservation appeal Tweets from February 14, 2021:

> 14:59: "We know it's cold. But if you turn down your heat to 68 degrees and put on a fleece, you can help keep the power flowing for everyone. #showusyourfleece #conserve" (ERCOT, 2021d).

15:55: "Laundry on Valentine's Day? No. #conserve #dontuseappliances" (ERCOT, 2021e).

16:37: "Close your blinds to conserve heat. You already know what it looks like outside. #conserve" (ERCOT, 2021f).

17:27: "Unplug the fancy new appliances you bought during the pandemic and only used once. #conserve #stopphantomenergy" (ERCOT, 2021g).

While all the humorous-toned conservation tweets on February 14th generated outrage, particularly days later when power outages were occurring, the final one about unplugging appliances was by far the most engaging. It had the second-highest engagement score of all related Tweets throughout the entire event (2,614) and included the hashtag #stopphantomenergy, the only time this hashtag was used. Here is the image that accompanied that Tweet:

As did the previous pre-crisis Tweet, this one provoked numerous angry replies, with responders attributing responsibility for the outages to ERCOT. Here are some selected responses (ERCOT, 2021g).

February 16, 2021

15:50 @nathanael_o (Nathanael O'Reilly): "Wow. What a ridiculously offensive post. People are trying to avoid getting hypothermia in their own homes due to your mismanagement and you're trying to blame imaginary consumers using kitchen appliances?!"

17:41 @JessFoxBooks (Jess Fox The Marriage Mistake! OUT NOW!): "The amount of money you're spending on a social media or marketing manager with no ability to read the fucking room could have been spent on winterizing or upgrading our power grid, or even a crisis communications plan that included actual transparent communication."

18:46 @prestonelliott (preston Elliott): My mixer is unplugged, can I have power now?

21:25 @diananotdiane3 (COÑOpithecus coñorensis) : "Tone deaf asf" (EMOJI: Woman with hand over face).

21:25 @mvandemar (Michael VanDeMar): "I am dumbfounded that this is still up over 48 hours later as families are fighting not to freeze to death due to your negligence."

22:41 @DonHarris4 (Don Harris): "Better idea, Give Texans their power, be better prepared, don't secretly vote to raise rates for your errors, and read the room. People are dying. Don't lecture about appliances, instead do your job."

February 17, 2021

00:48 @DoubleChinner (RD Bacon find me at &rdbacon&mstdn.party): "Your negligence has a body count now and you're shaming people with stand mixers?!?! This should be exhibit A at the class action lawsuit headed your way."

01:46 @WeWatchedAMovie (We Watched A Movie (Mike)) "Holy shit, good luck at the bad timing awards."

10:17 @luesanchezr (Lue SanRoc): "WTF?"

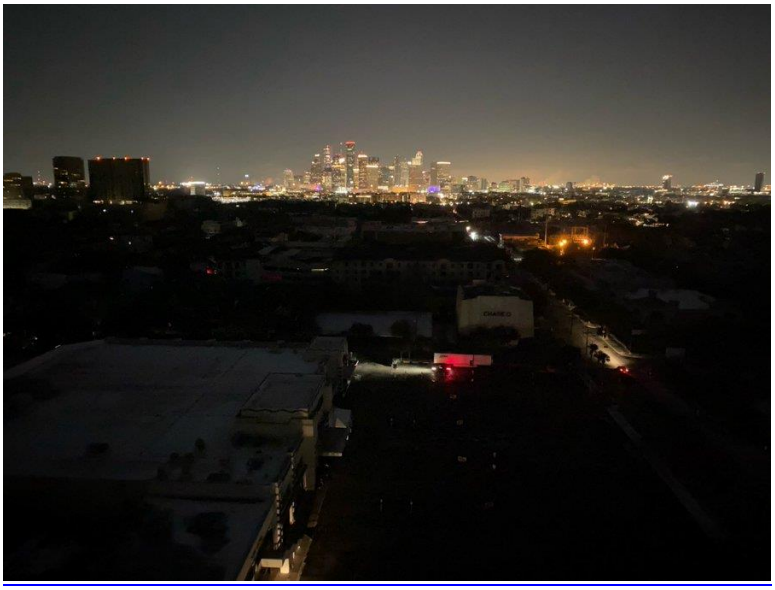
15:08 @RowdyMaya (Maya s): "Whoever is in charge of this account needs to be fired."

21:42 @Nik0215 (AustinGirl) "Seriously?!?!?!?! Read the f'ing room!!!!! People don't have power or water right now! (Five red face emojis with symbols over mouth) Heads need to roll at @ERCOT_ISO (GIF of woman shaking head with arms crossed)."

February 18, 2021

09:03 @KrisComics (Kristen McGuire): "People are freezing and suffering, but thank you for this snarky tip. You should be ashamed of yourselves."

A reply to this post from @better_bats (jankey harns) on February 16, 2021 at 18:18 was particularly engaging, with at least 141 Retweets and 2,000 likes. It said, "Hi ERCOT I haven't had power for 36 hours but this was the skyline of my city last night, is there something I can do to help?" This was the image:



Perhaps these buildings had generators and backup power systems that were powering them, but the image did not resonate well with the public.

On Day 2 of the crisis, the widespread power outages began occurring just after midnight, triggering three ERCOT Energy Emergency Alert (EEA) Tweets, which appeared in rapid succession and were seemingly automated. An EEA 1 was declared just after midnight. On its website, ERCOT describes an EEA Level 1 as, "Low reserves. Tools deployed to meet demand" (Ercot.com/TXANS, 2023). Less than an hour later an EEA 2 was declared, which means "Lower reserves. Additional tools deployed to meet demand" according to the ERCOT website (Ercot.com/TXANS, 2023). This was followed by an EEA 3 13 minutes later, signaling,

"Extremely low energy reserves. Controlled outages possible" (Ercot.com/TXANS, 2023). There was a seriousness to the EEA Tweets, compared to the Tweets from the previous day. But they didn't start with "ERCOT," or a proper noun, or a complete sentence. The term "EEA" wasn't explained. Neither were any of the EEA levels. None of the EEA messages had accompanying images. These were the three EEA Tweets on February 15, 2021:

> 00:17 "has declared an EEA 1. Energy conservation is needed. There are no rotating outages at this time. 00:17:45 150221" (ERCOT, 2021h).
>
> 01:12 "has declared an EEA 2. Consumers are urged to reduce electricity use. Rotating outages may be needed to protect the system. 01:12:06 150221" (ERCOT, 2021i).
>
> 01:25 "has declared an EEA 3. Energy conservation is critical. Rotating outages are underway to reduce demand on the electric system. We urge Texans to put safety first during this time. Traffic lights and other infrastructure may be temporarily without power. 01:25:40 150221" (ERCOT, 2021j).

The EEA 3 Tweet at 01:25 was the Tweet with the highest engagement score throughout the entire event (3,766). While it contained both the SCCT-recommended instructional and adjusting information, warning infrastructure might be without power, and expressing concern for stakeholders, it was worded poorly. Here are some selected responses to that Tweet that demonstrate anger and responsibility attribution (ERCOT, 2021j):

> February 15, 2021

01:46 @danielgearner (Daniel Gearner): "10 years since 2011 and you guys still couldn't figure this shit out."

03:05 @ItsEricAaberg (Eric Aaberg): "What does EEA 3 mean?"

03:42 @Enviilabs (Envii Labs): "How do you go from EEA 1 to EEA 3 within an hour and at 2 am? People were sleeping. How would we have had time to plan and how do we put safety first when we had no indication of this until overnight when energy consumption is at its lowest? It's been almost 2 hours in NW Hou"

07:50 @WeHearPodcast (We HearVoicesOutThere #voteBlue2024): "We are past the 5 hour mark without electricity. Surely, you can give power to those of us who have been freezing and turn off other homes that have power. Travis Heights, Austin."

12:33 @CuriousHasan (Imran Hasan): "How is this a rotating outage when some of us don't have power for over 10 hours while others had no outage at all? Our houses are in 40s temperature now & with young kids, this is getting life threatening."

February 16, 2021

09:06 @keith4408 (Keith): "Haven't had power since yesterday so would say that's the extent of conservation our household can do, oh and F off ERCOT."

On February 17, on the fourth day of the crisis, there was a second Tweet that attempted to provide adjusting information and demonstrate some care and concern for stakeholders. It said, "We know this is hard. We continue to work as quickly and safely as possible to restore power. We gained some MWs overnight but are back to 14,000 MW of load shed; lost east DC-

tie imports due to Midwest power emergency. We hope to reduce outages over the course of the day" (ERCOT, 2021l). This Tweet had the seventh-highest engagement score of the event (1,091). It was paired with confusing, jargon-heavy language and not well-received.

One touching response came a half-hour later at 09:08 from @FightingWithDM (FightingWithDM), who said, "All due respect, but I don't think you DO understand how hard this is. I had to saw up my baby's crib so that we could keep a fire going. And now we're burning toys (wood blocks). We've been without power since Monday at 5:40. We'd previously been out from Thursday to Sunday." That reply prompted these conversations/selected replies including offers to help and a media interview request:

> 09:49 @TheAntiprude00 (The Golden Emperor): "Hey, at least you have a fireplace. That's the even sadder part. Millions don't."
>
> 10:44 @PaulMatadeen (Paul Matadeen): "Hi, my name is Paul Matadeen and I'm a news editor with http://Weather.com (an IBM brand/company). If you can safely do so, we'd like to do a short interview w/you (via video chat, phone, etc) to describe what you're experiencing..."
>
> 12:44 @FightingWithDM (FightingWithDM): "Oh, believe me, I FULLY understand that I am in a FAR BETTER situation than many. But I'm saying, I prepared for an event like this by making sure we got a house with a fireplace AND that it was stocked with about 50 hours worth of firewood."
>
> 15:42 @FightingWithDM (FightingWithDM): "But we're now on our 4th FULL day of no power in a week and so we're burning our furniture."

February 18, 2021

01:40 @jamdef7 (JamesD) "Hey do you live in the Dallas area? I have firewood, 5 gallon water jugs, and other supply's. I have a 4wd truck. Lmk if o can help!"

Only two of ERCOT's Tweets during the crisis stage of Winter Storm Uri were found to contain adjusting information that expressed concern or empathy for stakeholders. Two were found to contain what might be considered bolstering information because they thanked stakeholders for conserving energy. Three contained the deny theme recommended for the victim crisis type, using the scapegoat technique, and blaming the weather for the event. They included this Tweet, posted on February 15, 2021, at 04:45, that said, "ERCOT calls for rotating outages as extreme winter weather forces generating units offline. 'Every grid operator and every electric company is fighting to restore power right now,'" said ERCOT President and CEO Bill Magness" (ERCOT, 2021k), and linked to a news release. It was the fifth-most engaging Tweet overall during the event, with an engagement score of 1,243, and included this reply from @expectoprotesto (Expecto Protesto) that same day at 11:46, "'Fighting to restore power' Such fucking bullshit l"

Post-crisis – February 21, 2021-February 20, 2022

ERCOT posted 18 Winter Storm Uri-related Tweets in the post-crisis stage. Most were informational announcements of board meetings to discuss the storm, links to various reports, changes in leadership, and tests of the ERCOT Emergency Notification System. Of these, only four contained SCCT-prescribed adjusting information for the post-crisis stage; corrective measures being taken to prevent a future similar incident from occurring. All four included links

to news releases on ERCOT's website. The first was issued nearly five months after the crisis stage on July 13, 2021, saying "ERCOT unveils Roadmap to Improving Grid Reliability, comprehensive operations changes already underway (link to news release)" (ERCOT, 2021n). These were the two final related post-crisis Tweets, both of which contained the hashtag #txlege, for Texas legislature:

> "ERCOT has completed inspections of more than 300 electric generation units and 22 transmission facilities to assure they comply with tough, new Public Utility Commission and Texas Legislature winter preparation requirements: https://t.co/5dW6DCVcvG @PUCTX #txlege" (ERCOT, 2021p).

> "ERCOT filed its final winter weatherization readiness report with @PUCTX showing 321 of 324 electric generation units and transmission facilities fully passed inspection for new winterization regulations. https://t.co/dR3hIKDaym #txlege" (ERCOT, 2022).

The final one about the 2022 winter weatherization readiness report had the highest engagement score of the post-crisis Tweets. Nearly a year later people were still angry and/or didn't trust ERCOT, as evidenced by these selected responses:

> January 18, 2022
>
> 19:13 @imafan70 (Cody BuckFiden Shannrock): "Good! Does that mean that you won't be murdering people by shutting their power off again this year?"

20:59 @TrumpIsTheEnemy (Dr Ellen Riple FDJT #1619 #DC51) "LOL"

22:56 @realDutchTexan (DutchTexan): "Some how we all know this tweet will not age well…" (GIF of a young, muscular man ripping a tree stump apart with his bare hands.)

January 19, 2022

12:52 @28Papa_Bear (PapaBear): "Did you actually inspect them this time or was this another table top exercise conducted in a meeting room like you did last time ?"

January 30, 2022

21:32 @TexasHodlerMom (Texas Hodler $8.01): Y'all better have your act together this year. I'm not about to freeze for days with out power again."

While use of #txlege signaled corrective actions that will prevent future incidents, it may also have been an attempt to use the deny theme with a scapegoat strategy, recommended for the SCCT victim crisis type. Use of #txlege may have implied that the outages were caused by rules and regulations out of ERCOT's control. While this may have partially been the case, based on history, and how its customers attributed responsibility, ERCOT should have selected the SCCT preventable crisis type or cluster. The preventable cluster prescribes rebuild strategies of compensation and apology. ERCOT likely didn't utilize these for legal reasons, and the sheer scope of the loss of life and property damage.

While there were 17 Tweets unrelated to Winter Storm Uri posted in the post-crisis stage, people still responded to those with anger. In September, it posted this Tweet, "ERCOT is

preparing for Tropical Storm Nicholas," which included a link to a news release (ERCOT, 2021o). It garnered these angry selected responses:

> September 13, 2021
>
> 17:37 @ItalianTexans (Mike): What are y'all preparing? Steaks and lobsters for your dinners? Give me a break!
>
> 17:40 @Axewave_(Creepy AXE(murderer)WAVE_, Spooky Edition): "You better not fuck this up again."
>
> 17:55 @bcp451 (Brendan): Should we turn all our stuff off so you can't try and blame us for power outages?
>
> 18:56 @TallMediaMaven (Audrey): "What's your exact changes and finished plans to prevent another outage this coming winter? Detail it immediately. We all have a right to know."
>
> September 14, 2021
>
> 20:37 @solisSolja (Curator of Vibes): "You motherfuckers preparing our grid for this winter??"

Discussion

ERCOT's Twitter response to Winter Storm Uri did not effectively use any themes recommended in stealing thunder, digital stealing thunder, or SCCT. It failed to disclose the likelihood of widespread, extended power outages as prescribed by stealing thunder. It failed to provide stakeholder-focused, honest, factual, and prompt information as prescribed by digital

stealing thunder. Instead of preparing the public by emphasizing the reality of the risk, it downplayed the risk. In both the pre-crisis and crisis stages, attempts to inform, instruct, or alert were ERCOT and grid-focused, indirect, and unclear. Instructing information told consumers to conserve energy to protect the grid but did not provide any advice as to how people should protect themselves from the myriad life-threatening physical needs that were unmet due to the power outages.

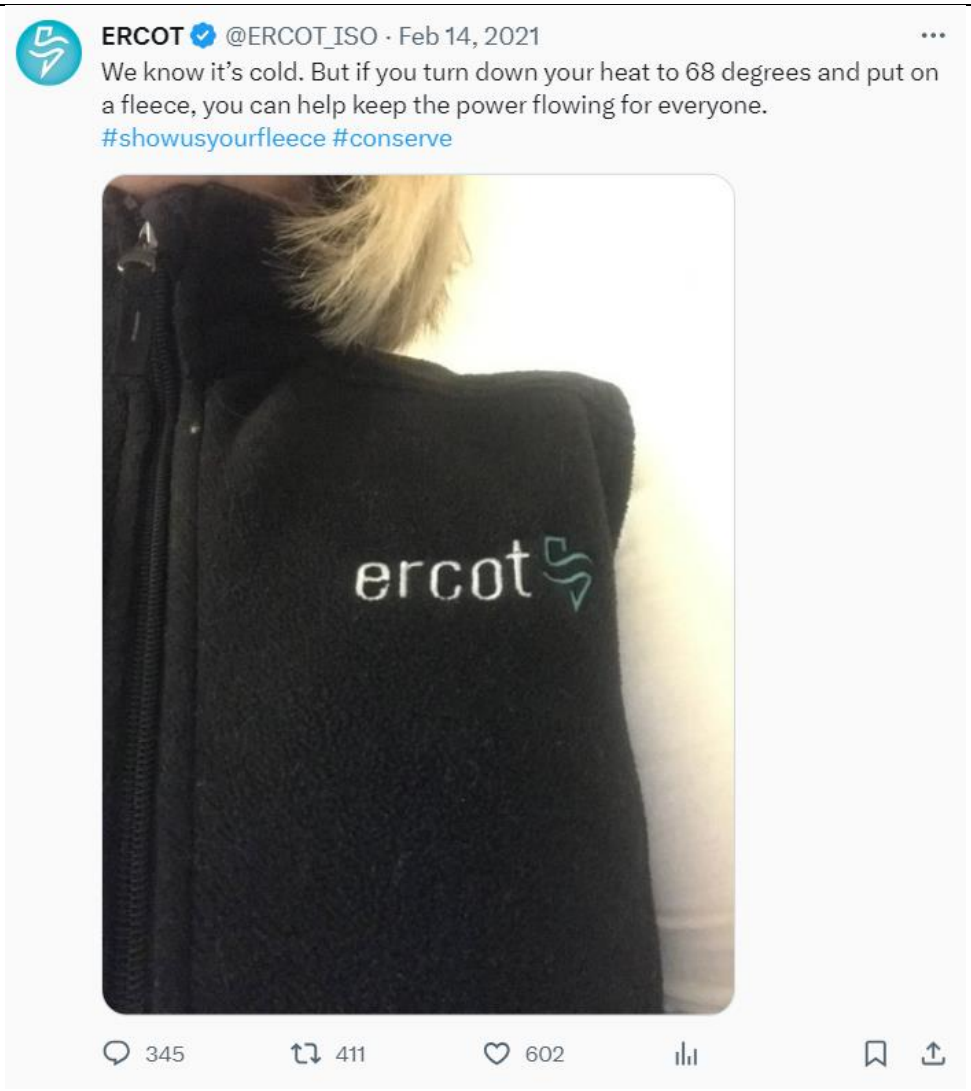
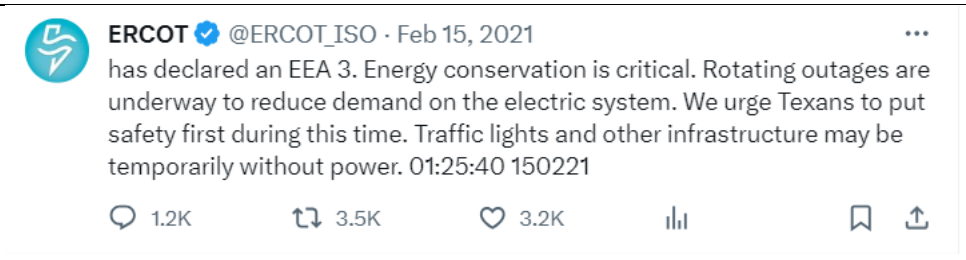
ERCOT's pre-crisis Tweets were ERCOT-focused, rather than stakeholder-focused as recommended in digital stealing thunder. Consumers were told to monitor grid conditions – presumably to be notified of planned, rolling outages – but were not clearly told why. The intent or implied meaning may have been that grid conditions should be monitored to know if one should conserve energy or prepare for an outage. But the messaging was vague and unclear. It was misleading at worst, or dishonest at best. It failed to emphasize the reality of the risk as prescribed by digital stealing thunder and prepare the public for widespread, extended power outages.

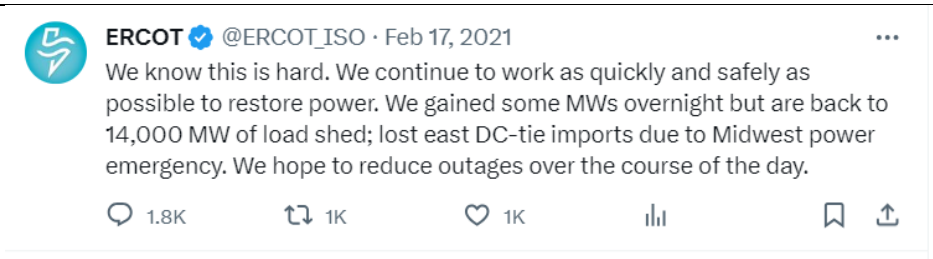
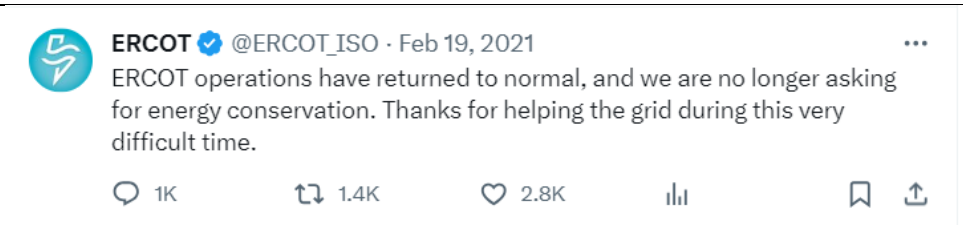
The rebuild theme prescribed for the preventable crisis type, which recommends compensation and apology strategies, was not utilized. Based on how stakeholders attributed responsibility, this is the crisis type that should have been selected. Most of ERCOT's crisis-stage Tweets simply contained instructing information that was jargon-heavy, ERCOT and grid-focused, and confusing, using terms such as "MW" for megawatts, "load shed" and "DC-tie imports." Most were text-only and did not include images. ERCOT didn't respond to or engage with any of the angry replies. Only two Tweets, on the second and fourth days of the crisis stage, contained adjusting information and attempted to express concern for stakeholders.

Table 2 - Examples of how themes were used

Only the instructing, adjusting, deny, and bolstering themes were used. The self-disclosure, diminish, and rebuild themes were not used. Below are examples of how the themes were used in the three stages of the crisis.

Instructing, pre-crisis stage (ERCOT, 2021b)	

Instructing, crisis stage (ERCOT, 2021d)	
Instructing and adjusting, crisis stage (ERCOT, 2021j)	

Deny, crisis stage (ERCOT, 2021k)	
Adjusting, crisis stage (ERCOT, 2021l)	
Bolstering, crisis stage (ERCOT, 2021m)	
Adjusting, post-crisis (ERCOT, 2021n)	

Limitations and Implications for Future Research

This study did not include those who did not have access. Many who were without power were unable to charge their electronic devices and phones and access social media. It also did not include those who did not use Twitter. As previously mentioned, Twitter is only utilized by 23 percent of the US adult population (Auxier & Anderson, 2021). Another limitation was the

Twitter platform was in English. However, Spanish is the language spoken at home by more than seven million Texans, nearly 30 percent of the population (Migration Policy Institute, n.d.). Of those who are foreign-born, more than five million, a little more than half say they speak English less than "very well" (Migration Policy Institute, n.d.).

Claeys and Opgenhaffen (2016) say that crisis communication research has been studied for decades, resulting in clear and useful theoretical guidelines for PR practitioners that are underutilized. Stealing thunder and Situational Crisis Communication Theory are two such examples. Clayes and Opgenhaffen say, "Literature suggests that practitioners acknowledge the value of Stealing Thunder, but rarely self-disclose crises" (p. 232). They also note that when SCCT demonstrates an organization should express acceptance of responsibility, research shows, "that although offering a full apology might be the most effective crisis response strategy when responsibility attributions are high, the most frequently employed strategies are bolstering and denial" (p. 232). To further examine the gap in theory and practice, further study might include interviewing a current or former member of ERCOT's external communications team, to understand how – and, if possible, why – the organization's response differed from the responses recommended within the crisis communication literature. Initially this study attempted to do this but was unsuccessful at arranging an interview after several attempts made through several channels.

The implications of this research might serve as a cautionary tale and provide practical guidance to public utility companies, especially those with a crisis history. Stakeholders may attribute responsibility to the utility in the event of a failure, even if the weather is a factor. Knowing your stakeholders, and how they communicate, will help communicators to help them

prepare to face emergencies. Being prepared in advance with a crisis communication plan and messaging that is stakeholder-focused and demonstrates care and concern for their physical and psychological well-being is critical. The importance of connecting the organization's communicator(s) with management decisions is vitally important so the communicator knows and can clearly communicate the complete story.

The use of A.I. in crisis communication for the analysis of responsibility attribution, sentiment, and recommended corresponding SCCT response is something that would be important to study and develop further.

Conclusion

In conclusion, the theme of self-disclosure recommended by stealing thunder and digital stealing thunder was not utilized in the pre-crisis stage. According to Sang Yeal Lee, this might be viewed as unethical because ERCOT did not provide factual information promptly when physical and financial injuries were expected (Lee, 2020). ERCOT's Tweets did not put the interests of stakeholders first and did not emphasize the reality of the risk as prescribed by digital stealing thunder (Lee, 2020).

ERCOT's response might also be viewed as unethical by Timothy Coombs because it didn't protect stakeholders from physical harm or adequately address their psychological needs through expressions of care and concern as prescribed by SCCT for a foundational, ethical, base response (Coombs, 2007). In addition to the base response, SCCT is a tool to select the appropriate crisis response strategy based on crisis type. When two crisis types apply, such as the victim (weather-related) and preventable (organizational misdeed with injuries) crisis types, the appropriate crisis response strategy is the one that has widely grown in the public (Coombs,

2007). Based on history, this analysis assumed that ERCOT knew in advance that widespread, extended power outages were likely, placing it in the SCCT preventable crisis type. SCCT themes recommended for a preventable crisis in the crisis and post-crisis stages include instructing, adjusting, rebuild, and bolstering themes. The rebuild theme is the primary response strategy, while bostering is a secondary strategy that should be used with the recommended primary response strategy (Coombs, 2007).

ERCOT's Tweets did not reflect the rebuild theme, which recommends accepting responsibility and offering apologies and compensation. Instead, the deny theme was used in a few Tweets to shift blame to the weather, as recommended for the victim crisis type. This was a mismatched response, according to SCCT (Coombs, 2007). ERCOT also used the bolstering theme in a few cases. This secondary strategy was not paired with any primary response strategies as recommended. The diminish theme was not used.

Coombs says that increased attributions of crisis responsibility generate stronger feelings of anger and in extreme cases, "schadenfreude" (drawing pleasure from the pain of others) toward the organization (Coombs, 2007). Based on the plethora of expletives and threats of lawsuits, many users' responses to ERCOT's Tweets posted in all stages of the crisis seemed to demonstrate schadenfreude, and that ERCOT left stakeholders disconnected in more ways than one.

Author's note/post-script

Perhaps ERCOT has learned its lesson. In May of 2023, ERCOT launched the Texas Advisory and Notification System, or "TXANS." ERCOT described TXANS on its website,

saying, "TXANS is a tool ERCOT will use to provide greater transparency on grid operations; to raise awareness earlier of future possible periods of higher demand and tighter grid conditions" (Ercot.com/TXANS, 2023). The TXANS alert system provides grid-level conditions in easy-to-understand graphics and plain language. It includes weather watches, conservation appeals, and Energy Emergency Alerts, describing what each means and the implications for the power grid. It is also available in Spanish. This tool, along with legislative changes, are steps in the right direction to helping Texans stay connected.

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Appendix A – ERCOT Energy Emergency Alert (EEA) Communications

ERCOT Energy Emergency Alert (EEA) Communications

Emergency Levels*	Trigger	Grid Operators' Actions	Automated Emergency Notifications	Communications from External Affairs	Media/Public Notifications
Normal Conditions	Reserves >3,000 MW	Normal operations	None	None	None
Control Room Operating Condition Notice (OCN)	Need for additional resources	Issue "OCN" to Market Participants via hotline and Notice Builder	None	Provide update to PUC	None
Conservation Alert	As needed, to encourage conservation when tight operating reserves are expected to pose a reliability concern	Monitor need for additional generation and voluntary demand response resources	None	Provide update to PUC, Legislative leadership staff, Texas RE and OPUC; coordinate public notification with PUC staff; notify media and Market Participant communicators	Grid Conditions update on ercot.com; social media posts; update app status; send news release (discretionary)
Control Room Advisory	Reserves <3,000 MW and not expected to recover within 30 minutes	Issue "Advisory" to Market Participants via hotline and Notice Builder	None	Provide update to PUC	None
Control Room Watch	Reserves <2,500 MW and not expected to recover within 30 minutes	Issue "Watch" to Market Participants via hotline and Notice Builder. Release available non-spinning reserves (available within 30 minutes).	ENS notification to SOC, PUC staff, IMM and Texas RE	Provide update to SOC, PUC, OPUC, RRC, TCEQ, ERCOT Board, Legislative leadership staff, IMM, Texas RE and Market Participant communicators	Consider conservation alert to support grid reliability
EEA 1 – Conservation Needed	Reserves <2,300 MW and not expected to recover within 30 minutes	Issue "EEA 1" to Market Participants via hotline and Notice Builder. Bring any additional generation online; release Responsive Reserves provided by generation if not already in use; import power across the DC-Ties and request switchable generation if available; implement Emergency Response Service (ERS).**	Same as above, plus OPUC, Legislative leadership staff, ERCOT Board and Market Participant communicators	Same as above, plus provide update to EmergencyAlerts, News_Bulletins and News_Media_Only mailing lists***	Consider conservation alert to support grid reliability. If needed, Grid Conditions update on ercot.com; social media posts; update app status; send news release (discretionary)
EEA 2 – Conservation Critical	Physical Responsive Capability (PRC) <1,750 MW and not expected to recover within 30 minutes or frequency is below 59.91 HZ for 15 minutes	Issue "EEA 2" to Market Participants via hotline and Notice Builder. Deploy remaining ERS**; deploy Load Resources provided by large industrial customers; request TDSP demand response programs and voltage reduction. Begin Block Load Transfers of load to other grids if appropriate.	Same as above	Same as above	Send conservation alert. Grid Conditions update on ercot.com; social media posts; update app status; send news release (discretionary)
EEA 3 – Rotating Outages in Progress	PRC <1,000 MW and not expected to recover within 30 minutes or frequency is below 59.91 Hz for 30 minutes	Issue "EEA 3 – Rotating Outages" to Market Participants via hotline and Notice Builder. Instruct transmission operators to implement rotating outages; areas affected are at the discretion of the utilities.	Same as above	Same as above	Same as above, plus activate Call Center as needed

*Depending upon overall system conditions, ERCOT Operations may exercise some discretion regarding emergency levels and specific actions, based upon these guidelines.

**Emergency Response Service (ERS) may include 10-minute, 30-minute and weather-sensitive demand response resources.

***Sign up for EmergencyAlerts and News_Bulletins email lists at http://lists.ercot.com.

(Ercot.com, n.d.)

Appendix B – SCCT crisis response strategy guidelines

Table 3: SCCT crisis response strategy guidelines

1. Informing and adjusting information alone can be enough when crises have minimal attributions of crisis responsibility (victim crises), no history of similar crises and a neutral or positive prior relationship reputation.
2. Victimage can be used as part of the response for workplace violence, product tampering, natural disasters and rumors.
3. Diminish crisis response strategies should be used for crises with minimal attributions of crisis responsibility (victim crises) coupled with a history of similar crises and/or negative prior relationship reputation.
4. Diminish crisis response strategies should be used for crises with low attributions of crisis responsibility (accident crises), which have no history of similar crises, and a neutral or positive prior relationship reputation.
5. Rebuild crisis response strategies should be used for crises with low attributions of crisis responsibility (accident crises), coupled with a history of similar crises and/or negative prior relationship reputation.
6. Rebuild crisis response strategies should be used for crises with strong attributions of crisis responsibility (preventable crises) regardless of crisis history or prior relationship reputation.
7. The deny posture crisis response strategies should be used for rumor and challenge crises, when possible.
8. Maintain consistency in crisis response strategies. Mixing deny crisis response strategies with either the diminish or rebuild strategies will erode the effectiveness of the overall response.

(Coombs, 2007, p. 173)

Appendix C – Winter Storm Uri timeline and @ERCOT_ISO

February 10, 2021 (pre-crisis stage begins): The first cold front moved across the state, bringing widespread freezing temperatures, with sleet and freezing rain in the forecast (U.S. Department of Commerce, NOAA, 2022). ERCOT relies largely on oil and gas for power generation. On this same date, four days before the next storm hit, and five days before the power outages began, Texas Governor Greg Abbott was informed that there would be a likely natural gas shortage by then-chair of the Public Utility Commission of Texas, DeAnne Walker (De Chant, 2021). Additionally, the system had not been winterized, even though such recommendations were made following a 2011 freeze that resulted in massive outages (Busby et al., 2021). Based upon conditions, the forecast and history, it is likely that ERCOT knew at least a few days in advance that massive power outages were probable. Yet its communications did not convey this.

February 11, 2021: The National Weather Service issued its first Winter Weather Advisory at 09:37 (US Department of Commerce, NOAA, 2022). ERCOT followed by issuing the first cold weather warning from its official Twitter account, @ERCOT_ISO, at 14:18, saying "Extreme cold weather expected to result in record electric use in ERCOT region" (ERCOT, 2021c). It included a link to a news release posted on ERCOT's website, which said that ERCOT had instituted a "Watch" and an "Advisory" due to extreme cold (Ercot.com, 2021). It noted, "The grid operator is also working with transmission operators to minimize transmission outages that could reduce the availability of generation or otherwise impact the ability of the system to serve demand" (Ercot.com, 2021). Another Tweet on this same date encouraged people to download ERCOT's mobile app so they could monitor grid conditions in "real time" (ERCOT,

2021b). There were no additional Tweets from ERCOT until the significant storm hit three days later.

February 12, 2021: The National Weather Service forecast for Friday, February 12, 2021, included these warnings:

- "A historic winter storm is poised to impact North and Central Texas, with impacts beginning as early as Saturday morning (February 13, 2021), continuing through Monday (February 15, 2021).
- "Extremely cold temperatures, rivaling the December 1989 Arctic Outbreak are forecast on Sunday and into Monday (February 14 and 15, 2021), with prolonged much below normal temperatures expected to continue through next week.
- "Major impacts resulting in severe stress to the region's infrastructure (particularly power, water, and highways) are likely. Regional travel will be crippled for days" (Friedman, 2021).

February 13, 2021: Texas Governor Greg Abbott gave a news conference regarding the incoming storm, along with ERCOT President and CEO Bill Magness. During the briefing, Abbott warned the weather would be "unprecedented" in Texas history. Magness said it would pose a "challenge." Taking an energy conservation approach, he asked people to lower their thermostats, unplug appliances, and cut back on usage. He did not warn of outages, or even use the word "outage" (KVUETV, 2021).

February 14, 2021 (crisis stage begins): With the entire state of Texas under a Winter Storm Warning, the storm hit during the afternoon on Valentine's Day. It brought snow, sleet, freezing rain, and even Thunder snow, and temperatures as low as five degrees (U.S. Department

of Commerce, NOAA, 2022). ERCOT's Tweets took the same conservation approach that Magness presented in the news conference the previous day. Among other things, they advised people to put on a fleece and close their blinds (ERCOT, 2021d, f). Again, they did not warn of likely or imminent outages.

February 15, 2021: Widespread power outages on ERCOT's grid began just after midnight, at 00:15, continuing for four days (University of Austin at Texas Energy Institute, p. 26). Minutes later, at 00:17 , ERCOT Tweeted an automated message, saying "has declared an EEA 1. Energy conservation is needed. There are no rotating outages at this time" (ERCOT, 2021h). These were followed shortly by Tweets declaring an "EEA 2" (ERCOT, 2021i), then an "EEA 3," saying, "Energy conservation is critical. Rotating outages are underway to reduce demand on the electric system" (ERCOT, 2021j). (See Appendix A for more information on EEA statuses.)

February 16, 2021: With more than 4.5 million homes and businesses (meters) without power (Busby et al., 2021), and people fighting to survive, ERCOT continued with conservation and jargon-heavy Tweets. These included links to official statements about anticipated service restoration (Murdock, 2021). They were described as "cryptic," "indecipherable," and "confusing" (Goldenstein, 2021). Goldenstein said, "Even the nonautomated tweets were often difficult to understand" (Goldenstein, 2021).

February 17-18, 2021: While being criticized for its handling of the statewide power outages, ERCOT's Twitter account gained more than 84,000 new followers in this two-day period (Murdock, 2021). Citing statistics from Social Blade, a social media tracker, Newsweek's Murdock reported, "the account attracted 76,479 new followers on Wednesday (February 17,

2021) and 7,653 on Thursday (February 18, 2021)," adding, "Previously the profile had been gaining under five new followers daily, the statistics suggest" (Murdock, 2021). Murdock said that beginning on February 15, when ERCOT first announced rotating outages, "each post has attracted hundreds or thousands of comments. Many social media users interacting with the account have voiced frustration with the company, appealing for it to work faster amid freezing temperatures" (Murdock, 2021).

February 19, 2021: Power outages ended, with normal operations being restored in the morning at 10:36 (University of Austin at Texas Energy Institute, p. 26).

February 20, 2021 (final day of crisis stage): The final National Weather Service Hard Freeze Warning expired at 09:00 (US Department of Commerce, NOAA, 2022).

February 21, 2021, post-crisis stage begins, and continues through February 20, 2022, the one-year anniversary of the end of the crisis stage.