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#### Article

# Zombie Ent(r)ailments in Risk Communication: A Rhetorical Analysis of the CDC's Zombie Apocalypse Preparedness Campaign

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#### **Abstract**

Apocalypticism is a powerful brew of eschatological belief and political imagination that is extremely persuasive. This article addresses the intersections between apocalyptic rhetoric and the technical communication of risk, disease outbreak, and disaster preparedness by analyzing the Centers for Disease Control and Prevention's zombie apocalypse preparedness campaign. Specifically, I argue that the framing of the Centers for Disease Control and Prevention's campaign relies on and extends problematic iterations of apocalypticism and undermines the educational objectives of disaster preparedness and response. I conclude with suggestions for how technical communicators designing public awareness and outreach campaigns can use existential risk rhetoric for engagement without succumbing to the pernicious side effects of apocalypticism.

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#### **Keywords**

risk communication, disaster preparedness, disease rhetoric, Centers for Disease Control and Prevention, zombie apocalypse, technical communication, apocalyptic rhetoric

#### Introduction

Apocalypticism is a powerful brew of eschatological belief and political imagination that is extremely persuasive. The logic of the end time is deployed in many contexts to persuade audiences including arguments against nuclear weapons, CO<sub>2</sub> emissions, and nanotechnology, as well as arguments for such diverse topics as preserving endangered species and space colonization. Since 2011, the Centers for Disease Control and Prevention (CDC) has employed a zombie apocalypse metaphor to increase public engagement with their all-disaster preparedness campaign. Although the goals of this campaign are laudable and previous research on this campaign found that the CDC was successful at attracting more public and media attention than normal, the humorous message of the zombie apocalypse was not very successful at instilling specific preparedness advice to get a kit, make a plan, be prepared, and seek more information (Fraustino & Ma, 2015). Another more ominous study that asked a group of children who participated in the CDC's zombie apocalypse curriculum to list items to be put in an emergency kit reported that the majority of them listed weapons such as hatchets, assault rifles, and handguns (Houghton et al., 2016). Despite these outcomes, the campaign is still preserved on the CDC's website for users to download curriculum and interact with zombie preparedness media.

The persistence of this campaign deserves more critical interrogation because it has important implications for technical communicators designing public awareness campaigns. Using a cultural studies lens (Longo, 1998), this article addresses the intersections between apocalyptic rhetoric and the technical communication of risk, disease outbreak, and disaster preparedness by analyzing the CDC zombie blog, which includes related lesson plans, social media, posters, and a graphic novel. Specifically, I employ an apocalyptic rhetorical analysis to argue that the framing of the CDC's all-disaster campaign relies on leveraging cultural fascination with zombies which uncritically extends problematic iterations of apocalypticism. This analysis adds to a growing body of academic work indicting the effectiveness of the CDC's zombie preparedness campaign, but more important, it seeks to unveil the otherizing entailments of zombie apocalypticism that exist regardless of the campaigns technocratic success. In addition, I hope to add to the analytical toolbox of technical communication by demonstrating the power of apocalyptic rhetorical analysis to unveil new revelations about existential risk communication.

To that end, I first review technical communication research on risk communication in the context of disease outbreaks and disaster preparedness. Second, I trace technical communication and apocalyptic studies scholarship to outline a methodology for an apocalyptic rhetorical analysis. Third, I unveil skeptical revelations about the rhetorical and cultural entailments of the CDC's zombie preparedness campaign. Finally, I conclude with suggestions for how technical communicators designing public awareness campaigns can use existential risk rhetoric for engagement without succumbing to the pernicious side effects of apocalypticism.

#### Literature Review

#### Technical Communication and Disaster Preparedness

According to the CDC, "zombies are often depicted as being created by an infectious virus, which is passed on via bites and contact with bodily fluids" (Khan, 2011a). This makes the zombie apocalypse a good fit for the federal agency tasked with "fight[ing] disease and support[ing] communities to do the same" (CDC, 2014). The selection of the zombie apocalypse as a metonym for all disasters is a rhetorical choice that reflects the CDC's primary mission to fight disease. Pandemic outbreaks have become increasingly common in a globalized world. The CDC (2017) estimates that a single "pathogen can travel from a remote village to major cities on all continents in 36 hours" and that pandemic risks cost our economy about \$60 billion annually. Medical intervention in these disasters only partially limits their impact on society. Successfully containing a disease outbreak requires educating the public about the risks of transmission and proper preventative measures to take to reduce that risk.

The effectiveness of public awareness campaigns about pandemic disease outbreaks depends on communicating the technical discourse of disease, disaster preparedness, and response to public audiences. Of course, for these goals to be achieved, a campaign must first be able to reach and engage an audience. One case study noted the powerfully engaging effect zombie preparedness messaging had, writing that it "sparked a huge increase in the number of visits to the homepage of CDC's emergency preparedness and response website" (Kruvand & Silver, 2013, p. 49) as massive increases in their Twitter (approximately 11,000 new followers) and Facebook (approximately 7,000 new fans) audiences combined to generate a 1,143% increase in website traffic from 2010 to 2011. Given this statistical evidence, it is no wonder that the campaign creators believe it was an effective and cost-efficient messaging campaign (Kruvand & Silver, 2013). However, and as others have pointed out (Fraustino & Ma, 2015; Houghton et al., 2016), audience reach does not necessarily translate into meaningful engagement with the substance of the message. The same zombie apocalypse rhetoric capable of capturing the public's attention can equally undermine its seriousness, which is why a technical communicator's evaluative lens must go beyond a technocratic assessment of effectiveness that equates audience size with meaningful participation.

While some technical communication research focuses on the public's role in disseminating information about disease outbreaks (Ding, 2009; Ding & Zhang, 2010), other research looks at rhetoric embedded in dominant media covering disease outbreaks (Angeli, 2012; Welhausen, 2015). Three of these studies focus on extrainstitutional communication channels during the 2002–2003 severe acute respiratory syndrome (SARS) outbreak in China (Ding, 2009), crosscultural comparisons of institutional communication during the 2009–2010 H1N1 flu outbreak (Ding & Zhang, 2010), and intercultural risk communication through data visualization during the 2014 Ebola outbreak in West Africa (Welhausen, 2015). The fourth is contained to analyzing metaphors used in U.S. media during the H1N1 outbreak (Angeli, 2012). Underscoring the socially constructed nature of risk, the common thread among these articles is a desire to understand how risk and reaction to disease epidemics is interpreted differently across cultures.

The insular nature of risk communication within the Chinese government led to a severe underreporting of the extent and danger of the SARS outbreak, but "Alternative media helped break down the information blockade by giving voice to individuals [...] The discursive machine that produced unofficial information about SARS risks was decentralized, nonhierarchical, interactive, tactical, resilient, and dynamic" (Ding, 2009, p. 335). Ding and Zhang (2010) found similar tactics used during the H1N1 outbreak in China where communities disappointed by government communication attempted "to circumvent the tightly woven official risk communication narratives and to disseminate their own contesting narratives to a large audience through the tactical use of different social media tools" (p. 89). In contrast, agencies in the United States such as the CDC employed social media to elicit two-way communication during the H1N1 outbreak but did so in technocratic fashion, privileging technical expertise in decision-making over public input, a pattern also demonstrated in the alldisaster preparedness campaign. These studies point to the desire of the public to be actively involved in risk communication during disease outbreaks. Tightly controlled institutional narratives and disingenuous attempts at twoway communication through social media are met with public distrust and countered by alternative media.

The invisibility of contagion combined with the possibility of existential virulence makes disease outbreak a unique disaster that threatens public wellbeing. Because it is easier to see the diseased than the disease, the public comes to rely on mediated information from official sources rife with sensationalized rhetoric to understand the risk and consequences of an outbreak. Angeli (2012) argues that "the way in which the media talks about flu and other epidemics seems to influence how we as the media's audience and healthcare

recipients respond" (p. 203). Logically, the same would likely apply to how agencies frame disaster preparedness and how we as their audience respond to those messages. Headlines describing response efforts as battles, war, and victimizers construct an oppositional rhetoric toward disease outbreak that serves technocratic interests by maximizing pubic anxiety over the risk of disease and public compliance with official and expert discourse (Angeli, 2012). Beyond verbal metaphors, data visualization in dominant media can also play a role in public anxiety and response (Welhausen, 2015). Technical communicators are uniquely suited to help organizations mediate disease discourse to prevent unduly increasing anxiety and inducing public panic during an outbreak. That work should start with the public awareness campaigns developed by agencies charged with protecting the public from disease.

#### Technocratic Versus Rhetorical Approach to Risk Communication

Communicating about the risk of disasters is a subset of what is often referred to as risk or crisis communication. Rhetorical approaches to risk communication begin with Katz and Miller's (1996) case study of a radioactive waste siting decision in North Carolina but are more fully articulated and philosophically defended by Grabill and Simmons (1998). The combination of these pieces of technical communication scholarship marks an important shift away from technocratic approaches to communicating about risk and toward a rhetorical understanding of risk communication practices. Grabill and Simmons argue that "risk is socially constructed, and the failure to see risk as socially constructed leads to an artificial separation of risk assessment from risk communication" (p. 416). Before this shift, the disciplines of risk assessment, cognitive psychology, and communication have predominately employed technocratic framework to communicate risk where "knowledge is constructed prior to communication" (p. 422) by experts and is disseminated to the public without their input. The problem with the technocratic approach is that it treats the concept of risk as value neutral and a-rhetorical.

An example of this approach in the literature can be found in Horsley and Barker's (2002) synthesis model for crisis communication. Based on a review of public sector state agency communications, they argue that it is critical for institutions to focus on building a relationship with the media before a disaster to help control interpretation during a disaster and evaluate the response after a disaster. It should be noted that as a model for crisis communication, Horsley and Barker (2002) are not as concerned with abating risk as they are with handling public relations crises guaranteed by the inevitability of disaster, writing that "organizations whose workers have strong communication skills and understand their role in a crisis will win a public relations battle, especially if the battle is played in an atmosphere of continuous, open communication" (p. 428). If public relations in their synthesis model are framed as a battle,

then the enemy must be the public whose naturally formed opinions must be subdued by institutional control of the narrative during a crisis. This is why it is important to critically examine attempts by federal agencies to engage the public in disaster awareness and response campaigns.

Two relatively recent and specific studies demonstrate the failure of technocratic approaches to risk communication. In a study examining the strategies that federal agencies "have adopted to communicate the risks associated" with nuclear power (Reamer, 2015, p. 350), the author found that a lot of techno speak was employed and that the agencies routinely adopted a top-down communication approach that cost the industry public trust and faith in nuclear power. Boiarsky's (2017) study similarly highlighted the consequences of ignoring the audience of a text during a crisis in her study of three different disasters. In e-mail and text communications preceding and during the events of all three disasters, she found that poor communication patterns associated with writerbased instead of reader-based messages were partially to blame. Reamer (2015) and Boiarsky's (2017) studies demonstrate the potential technical communication problems that occur when experts engage in technocratic practices at the expense of rhetorical awareness. Technical communicators working for agencies such as the CDC and who are responsible for preparing the public for potential disasters would benefit from considering case studies where technocratic approaches create barriers to audience acceptance of agency messaging.

Rhetorical approaches to risk communication can increase meaningful participation and ought to be valued above technocratic approaches to risk assessment. Simmons (2007) argues for the inclusion of local knowledge, defined as "all those affected by [a] decision" (p. 123), in risk communication strategies. According to Simmons, institutions that actively seek out public input and meaningfully reflect that input in their decisions are less likely to face public backlash and more likely to make high-quality decisions to create appropriate policies. The caveat here, however, is that risk communicators should tread cautiously to not homogenize the public as a singular grouping, which can result in the same oppressive outcomes as technocratic approaches. Negotiation approaches may avoid some of the problems associated with technocratic communication but also often fail to account for power differentials of stakeholders and thus pose potential barriers to meaningful participation. The use of a pop culture theme to engage public audiences is evidence that the CDC is aware that purely technocratic approaches often fail to persuade the masses. However, looking past the zombie garb, the all-disaster campaign still relies on the technocratic model of risk communication that privileges expertise and engages in mostly one-way transmissions of that expertise. This is a warrant for examining more contemporary cases where agencies believe they are engaging the public but still fall into the technocratic trappings of past risk communication practices.

Rhetoric has proven to be a useful lens for understanding barriers to disaster response in institutional settings (Dave, 2015) as well as effective institutional messaging before, during, and after a disaster strikes (Bowdon, 2014). In addition, extensive field research has yielded significant insight for practitioners into how technical communicators can help facilitate knowledge collection and dissemination during disasters (Potts, 2014) and how organizations can better support their preparedness practitioners by emphasizing community relationships (Mays, Walton, Lemos, & Haselkorn, 2014). Taken together, these strands of research make a compelling case for technical communicators to bring their skills to bear on disaster preparedness and response efforts. Being rhetorically aware of our audiences, understanding the implications of our messaging, and consciously designing human friendly information systems are just a few of the qualities technical communicators can share to help abate the worst consequences of both natural and human-made disasters.

Potts (2014) argues that technical communicators are well suited to become what she calls experience architects who "can help create systems that tap all possible means of collecting and exchanging up-to-the-minute, accurate information, and [who] can aid in the communication of knowledge among participants" (p. 16) during a disaster. Pop-up communities in the form of Facebook groups or Twitter participants rallying around hashtag groupings quickly come together to search for and answer questions such as the following: Where are shelters located? Is my loved one still alive? How long will it take to rebuild? What is the total cost of the damage? Thanks to social media platforms, victims of disasters can call upon a global community for aid in finding the answers they seek instead of relying on an often slow and bureaucratic information trickle from centralized government agencies. Potts (2014) articulates a clear exigence to the work of experience architects writing that "especially in the case of disaster, people use technology to connect, complete a task, and get out" (p. 112). In addition to the plethora of cases that Potts examines where experience architecture could positively impact the efficacy of disaster response, an analysis of the CDC's zombie apocalypse blog demonstrates why experience architects should also pay attention to how institutions leverage social media to prepare the public before disasters strike.

Technical communicators can help to abate rhetorical barriers to meaningful participation in disaster preparation. More specifically, they can help identify the possible entailments of apocalypticism embedded in public engagement campaigns. Dave (2015) argues that "technical communicators can play a leading role in helping to identify and dismantle or weaken rhetorical barriers created by problematic organizational categories [...] their intervention may end up saving lives" (p. 278). Nongovernmental institutions can also benefit from technical communication insight into disaster preparedness work as Mays et al.'s (2014) extensive evidence-based study of effective boots on the ground preparedness practitioners demonstrates. Their findings suggest that disaster

preparedness organizations must go beyond technocratic approaches to risk communication and better support participatory practices that emphasize practitioner—community relationships. Mays et al. (2014) write that "we found success to center above all else on an outcome of communities acting and advocating on their own behalf to meet their own needs" (p. 43). The rhetorical and technological skill sets of technical communicators can aid agencies tasked with conveying the risk of outbreaks and the need to prepare for epidemics to public audiences. In addition, technical communicators can help agencies understand the cultural implications of their rhetorical choices and help produce more inclusive and participatory messages. More research focused on understanding how disease rhetoric is disseminated through traditional and alternative media and contextualized by cultural norms could save lives by helping make disease preparedness campaigns more engaging and outbreak responses more effective.

#### **Methodology**

#### Rhetorical Analysis of Zombie Preparedness Artifacts

The methodology of this study is a rhetorical analysis that juxtaposes the apocalypticism of the CDC's zombie blog with previous research indicating a failure of the campaign to instill knowledge of disaster preparedness (Fraustino & Ma, 2015; Houghton et al., 2016). A goal of the present article is to build on previous examinations of the CDC's all-disaster campaign efficacy by adding apocalyptic and rhetorical insight to understand why the zombie apocalypse campaign could attract engagement while often missing the mark on inculcating particular disaster preparedness objectives. By elaborating on interdisciplinary theories of apocalypticism drawn from communication studies (O'Leary, 1994), constructive theology (Keller, 1996), and American studies (Quinby, 1999a), I hope to add apocalyptic rhetorical analysis to the toolbox of technical communicators practicing and studying risk communication in public engagement campaigns.

This section traces the lines of technical communication and rhetorical scholarship that informs my methodology. The rhetorical approach to technical communication is well suited to treating discourse as an object of inquiry. Rhetorical methods view texts as insightful objects of study capable of revealing the hidden motivations and meanings of authors and their audiences. For example, Katz's (1992) influential study of a Nazi memo employs classical rhetorical analysis to make an argument that the ethic of technological expediency formed, at least in part, the underlying moral basis for the Holocaust. Porter (2013) notes that "technical communicators who don't acknowledge the significance of rhetoric theory to their practice — or who underestimate [...] are likely caught in a theoretical framework that they can't see and that is therefore likely to limit their ability to adapt" (p. 141). Following a social constructionist approach, this method views language as the primary vehicle for meaning-making and reality

creation. By looking at the textual artifacts of our culture (like zombie media), a researcher can make educated inferences about the beliefs and values embedded in communication practices.

Previous research has used various methods to highlight problems with the effectiveness of the CDC's all-disaster preparedness campaign that go beyond the statistically relevant jump in website and social media traffic (Fraustino & Ma, 2015; Houghton et al., 2016) but have scratched only the surface of revealing the entailments of apocalypticism in the campaign. In applying rhetorical analysis of apocalypticism to the CDC's zombie preparedness campaign, I aim to provide insight into how the choice of apocalyptic narrative reflects communicator assumptions about public engagement as well as cultural attitudes toward disaster preparedness harbored by public audiences. Artifacts were selected from materials produced by the CDC labeled as zombie preparedness products that exhibit what Keller (1996) calls an "apocalypse pattern" (Keller, 1996, p. 11) characterized by adjacency to suffering, an either/or morality, an identification with the good, and a narrative of triumphing over evil. These artifacts included a variety of media produced for the CDC's zombie preparedness campaign including blog posts, lesson plans for educators, a poster, YouTube videos, and a graphic novel.

#### Hyperpragmatism, Cultural Studies, and Social Justice

Ancillary to industry, technical communication has traditionally played a supporting role in the production and maintenance of dominant culture. Through an instrumental and pragmatic focus on mediating the relationship between technical fields and their respective audiences, technical communicators have often uncritically helped to sustain oppressive cultural attitudes, beliefs, and behaviors. Scott, Longo, and Wills (2006) writes that when rooted in an ethic of hyperpragmatism "technical writing [can] serve as a hegemonic tool for maintaining cultural and material capital" (p. 7). This ethic is the driver behind problematic cultural gems such as death industry marketing (tobacco, guns, big pharma, etc.) and impenetrable financial documentation (terms of service, mortgage contracts, payday loans, etc.).

Though informed by past work from scholars such as Katz (1992) and Longo (1998), the move toward integrating social justice and cultural studies concerns with technical communication practitioner work has been a relatively recent trend (Colton & Holmes, 2018; Jones, 2016; Petersen & Walton, 2018). For example, Jones, Moore, and Walton (2016) argue that despite the dominant narrative of technical communication as a pragmatic discipline, core themes of inclusion and social justice can be observed in technical communication work throughout its history. In other words, technical communicators do not have to be passive agents of corporate employers that reproduce the most

problematic aspects of dominant culture. Instead, they can employ their skill set to open up the most mundane texts for critical inquiry and reflection.

Cultural studies can help to abate some of the worst cultural effects of hyperpragmatic technical communication theory and practice by helping "students review technical communication as regulated by and enacted as power" (Scott et al., 2006, p.13). In the documents that practitioners construct and the texts that academics interrogate, culture is not just found; it is made. As the connective tissue between technology and humanity, technical communicators are more than just mediators of technical cultural production; they are influencers and authors of the cultural discourse produced by the symbiotic technohuman relationship that has had a profound societal effect in the modern world (Slack, Miller, & Doak, 1993). Longo (1998) writes that the "concept of discourse as an object of inquiry is fundamental to work in cultural studies, wherein knowledge is viewed as constructed and legitimated through language practices" (p. 66). Cultural studies researchers concerned with this theme look at textual artifacts to understand cultural practice, which is an approach I extend here by tracing the rhetorical entailments of leveraging apocalyptic culture as a means for audience engagement.

#### Apocalyptic Rhetoric and Technical Communication

In his groundbreaking book on apocalyptic rhetoric, Stephen O'Leary(1994) argues that it is foolish to dismiss arguments made sincerely and in good faith by reasonable people about the end of time especially because we live in "a world where bright utopic visions compete with increasingly plausible scenarios of global catastrophe" making it "imperative to understand how our anticipations of the future may be both inspired and limited by the ancient logic of apocalypticism" (p. 4). From doomsayers to soothsayers, the world is filled with religious and secular prognosticators whose predictions are not always so farfetched as to be dismissed by the masses. These politicians, preachers, and pundits leverage the omnipresent possibility of our self-annihilation to attract adherents to their causes and media to their story. Because of its persuasive force, it is critical that we develop "a rhetorical theory of apocalyptic discourse" that "accounts for both the internal logic of apocalyptic speculation and the public logic of apocalyptic advocacy" (O'Leary, 1994, p. 8). Apocalyptic advocacy captivates the imagination of the modern audience because it plays on the fears and hopes of the general audience in a way many other public discourses cannot replicate.

Apocalypticism offers public audiences a metanarrative of human purpose that promises, even if falsely, to fulfill a basic human need to know the truth of our existence (O'Leary, 1997). It gives us a framework for understanding the nature of suffering and the problem of evil grounded in a linear temporality. In an apocalyptic frame, decision-making takes on a metaphysical gravitas that

potentially transcends the most immediate consequences of our mortal existence.

Catherine Keller's (1996) book has become a seminal work for scholars writing about apocalyptic culture in the United States. Starting from an interrogation of Apo-kalypso as an unveiling, revelation, and disclosure of meaning itself, Keller employs, rather than argues against, apocalyptic narrative as a basis for understanding our history and our present. Rhetorical analysis is, in a way, apocalyptic because it unveils and reveals that which is hidden or obscured in a text. In conversation with other apocalyptic theorists such as Lee Quinby and Stephen O'Leary, Keller convincingly articulates how apocalyptic habits constitute a pattern that pervades modern social movements and politics even in an era dominated by secular culture. The insidiousness of what Keller (1996) calls the "apocalypse habit" that "operates among us in multiple contradictory forms" (p. 252) is that it is expressed as much in secularism as it is in religious communities. By understanding the apocalyptic pattern of text, we can unveil, reveal, and disclose the apocalyptic habits that are so ubiquitous in modern life. Such a pattern can be identified by how texts position themselves adjacent to suffering, rest on an either/or mentality, advocate the purging of evil from oneself and society, and posit the inevitability of good triumphing over evil. These habits that make up apocalypse patterns are at work everywhere from the dyadic environment of our interpersonal relationships to the most macro visions of future life. Unlike Quinby, Keller (1996) is not arguing against apocalyptic culture and in fact suggests that such a path would produce an apocalypse of its own—an apocalypse of apocalypse that replicates what it criticizes. Instead, Keller (1996) argues for a counter-apocalyptic feminism that resists the dualistic and hierarchical thinking of apocalypticism rooted in patriarchal gender relations; which among other key differences can motivate through hopefulness in revelation rather than perfectionism in time (Keller, 1996).

Most important for the present article is Quinby's (1999a) "defense of theory as necessary for combatting" (p. 43) apocalyptic and millennialist culture. In other words, Quinby argues for the production of skeptical texts of revelation about apocalypticism and its entailments. To answer her call, I conduct a rhetorical analysis of the CDC's zombie preparedness campaign with the goal of articulating "skeptical revelation[s], which seeks to reveal or describe accepted truths and normative judgements while striving to ascertain the ways that they came to be considered true" (Quinby, 1999a, p. 45). In addition, I endeavor to discern habits that compose an apocalyptic pattern (Keller, 1996) embedded in the zombie preparedness campaign to help explain the results of previous research on the CDC all-disaster campaign (Fraustino & Ma, 2015; Houghton et al., 2016). Understanding the apocalyptic habits that are at work in disaster preparedness and public engagement campaigns can help to reveal problematic cultural logics at work in the CDC's zombie metaphor.

#### **Analysis and Implications**

#### Apocalypticism in American Culture

In the following analysis, I hope to demonstrate the power of apocalyptic rhetorical analysis to technical communicators responsible for engaging and preparing the public for existential disaster risks. Understanding the cultural entailments and implications of apocalypticism can help technical communicators identify and ameliorate problematic apocalyptic patterns that extend racialized and gendered logics in their own work. Choosing a narrative of the apocalypse so closely aligned with popular cultural imaginations of diseased and othered bodies is not an innocuous decision. The zombie narrative taps into the cultural zeitgeist and focuses apocalyptic imagination not on building community but on the finality of our common bond and its perversion at the end of history. Among other problems, the CDC's campaign promotes an apocalyptic habit that turns death into the monstrous enemy of existence—authorizing inevitably violent responses.

In American culture, a fundamentalist form of apocalypticism pervades religious and secular discourse in a very problematic way. Crowley (2006) writes that "an apocalyptist ethic informs exclusionary political and social agendas" (p. 132) where absolutism reigns and those demarcated as nonbelievers become enemies of humankind. In other words, apocalyptic rhetoric can quickly elevate disagreement into enmity by instilling transcendent purpose into every decision. Quinby (1999a) argues that apocalyptic belief and argument structure is found in everything from politics to popular culture. Particularly, American apocalypticism is rooted in a subgenre of apocalyptic belief called millennialism which poses world ending catastrophe as the backdrop for a renewed belief in the salvation and perfection of time in the new millennium. The 20th century provides ample evidence that "apocalyptic and millennialist principles and practices interfere with the goals of democratic societies" (Quinby, 1999a, p. 5). World war, genocide, atomic weapons, suicide bombs, and more were all justified apocalyptically through absolutist moral rhetoric, fear appeals, and utopic hope in a world yet to come.

Millennial rhetoric is persuasive because it employs a simultaneous fear of the other and unknown while posing a hope for the moral elect. Racial and sexual minorities become targets for Christian masculinist groups such as the Promise Keepers whose oath of moral purity offers emasculated men a chance at redemption through the creation and demonization of the impure odious enemies (Quinby, 1999a). Importantly though, it is not just the conservative right that employs apocalypticism as a persuasive rhetoric. Quinby (1999a) similarly takes to task social justice movements that share a similar "redemption and demonization" (p. 82) arc to construct a narrative of the end time while positing a utopian belief in the future if only we can perfect ourselves by rooting out

homophobia, sexism, and racism in our time. Where Crowley (2006) criticizes religious fundamentalists promoting an apocalypticism that "devalues unbelievers, characterizing them as pawns of history, deluded secularists, or misguided apostates who are condemned to suffering, pain, and death" (p. 115), the secular left can similarly devalue nonadherents to their causes, characterizing them as ignorant bigots condemned to acting against their own interests as determined by self-righteous activists. The point is that apocalyptic belief is not just a product of religiosity, it is built into the fabric of American culture in a way that deserves more scrutiny, which is why it is important for technical communicators to understand the implications of employing apocalyptic rhetoric in risk communication. Evoking the apocalypse can be a powerful public engagement strategy but can also extend problematic ideologies when technical communicators are not attuned to the cultural entailments of apocalypticism.

#### Rhetorical Entailments of Zombie Preparedness

Previous research on the CDC project indicates that although the all-disaster campaign was effective at generating engagement and media hype it was not effective at inculcating the disaster preparedness objectives to get a kit, make a plan, and be prepared (Fraustino & Ma, 2015). I argue that rhetorical analysis can discern the apocalyptic pattern at work in the zombie preparedness campaign, which may help to explain why previous research found that it was substantively ineffective at getting people to prepare for a disaster even though it was effective at drawing in a larger audience. However, it is important to recognize that even if the CDC's campaign had been substantively effective, much of the critique offered in this article would still apply. I contend that regardless of its technocratic effectiveness, the rhetorical entailments of the CDC's campaign uncritically leverage cultural fascination with zombies and extend problematic forms of apocalypticism.

The zombie apocalypse narrative is not a benign use of popular culture, it is enmeshed in cultural representations and understandings of disease, gender, race, and so forth. An apocalyptic pattern can be recognized by how a text positions its narrative as adjacent to suffering, exhibits an either/or mentality, and constructs a narrative where good ultimately triumphs. Taking a skeptical approach, I reveal how the CDC's all-disaster campaign justifies biopolitical control through racialized fear of the diseased body, how such a construction can create the conditions for racialized violence, and finally how the unreflective use of the zombie narrative iterates an apocalyptic masculinity that helps to sustain patriarchal oppression. Technical communicators should take away from this analysis how to identify apocalyptic habits in their own work so that they may make more informed decisions about the appropriateness of apocalypticism in various contexts given its potential implications.

In one of the lessons for educators incorporating zombie preparedness into their curriculum, the concept of a disaster is defined as "A disaster is any situation that causes human suffering or creates human needs that victims cannot alleviate without assistance" (Center for Preparedness and Response, 2018) and categorized into one of four types: bioterrorism, terrorism or mass casualty disaster, natural disaster, and epidemics/pandemics. The episodic framing of this definition is apocalyptic and although the definition defines disaster as any situation that causes human suffering, its subsequent categorization belies such a claim. Event-driven declarations of violence ignore systematic and omnipresent structures of violence that contribute to human suffering every single day (Cuomo, 1996). It is appropriate that this definition is found in a history lesson, which is a discipline marked by its linear and teleological orientation. This apocalyptic habit is discernable by its adjacency to suffering—a suffering that is not quite here yet; a suffering to come. Structural violence is ignored in the conception of disaster because "Some suffering, and some causes of suffering, remain irredeemable: that's hell" (Keller, 1996, p. 310). In other words, the suffering that matters most is that which we can temporally define, prepare for, and alleviate through institutional apparatuses, whilst ignoring the role of those same institutions in creating and sustaining the conditions for hell on earth.

Zombies create a clear distinction of enmity that constructs a visible threat out of difference. By breaking the laws of mortality, zombies defy what both secularists and the religious believe to be natural. It is a defiance that renders enmity absolute and clarifies moral action (Rasch, 2003). Either kill or be killed in the zombie apocalypse; except that death does not mean the end. In fact, death means something far worse, it means becoming a traitor to humanity as one linked CDC training video seems to demonstrate (Hawaii State Department of Health, 2012). What is also disturbing about this video dramatization of the zombie apocalypse is the visual comparison between a properly prepared subject and a subject who ignores his individual responsibility to prepare. The former is safe while the latter inevitably falls prey to the outbreak and turns into a zombie himself. Contained in the video is a neoliberal message that displaces the responsibility of institutions to prepare for disaster onto the individual. If the individual fails to listen, it is not just a personal failing, it is a moral and social one. In the zombie apocalypse, victims become victimizers, which means if one does not heed the call to prepare, they are potential enemies of the properly civilized subjects who do.

Contrasting with the neoliberal ethic of individualism is a third apocalyptic habit emphasizing the inevitable triumph of good over evil. In the first blog post in the campaign, Khan (2011a) declares that if zombies really did start to roam the streets, that the public should "Never fear" because the "CDC is Ready" (para. 8). A lengthy description follows detailing how the CDC would handle a zombie infestation through lab testing, patient management, and quarantine procedures and would ultimately succeed in breaking the transmission cycle

of the disease. Never mind that the particular narrative they've chosen for this campaign has a lengthy mediated history that shares a very common theme: There is no controlling a zombie outbreak.

Nevertheless, the CDC emphasizes its own readiness and in doing so operates as a synecdoche for all liberal institutions whose mission it is to protect the health of the body politic. They are the "good" whose triumph in millennialist culture is assured. As Fukuyama (1989) prophetically wrote that we have already reached the end of history marked by the "ideological evolution and the universalization of Western liberal democracy as the final form of human government" (p. 3). It is this apocalyptic habit that justifies the violent actions of institutions and the structures of oppression they support—they operate on our behalf to ensure the fulfillment of the liberal-secular-millennial promise where "daring, courage, imagination, and idealism, [has been] replaced by economic calculation, the endless solving of technical problems, environmental concerns, and the satisfaction of sophisticated consumer demands" (Fukuyama, 1989, p. 20), which means we have nothing to worry about. Keller (1996) calls this temporal state a cryptoapocalypse where the apocalyptic "text kills time before it kills us" (p. 85). Trapped in a temporally frozen utopia dependent on liberal institutions to stave off the end by any means necessary; we are asked to believe that "they" are the defenders of the "good" whose benevolence represents the thin line between our continued survival and our total annihilation.

#### Skeptical Revelations About the CDC's Campaign

The apocalyptic pattern discerned thus far leads to a few skeptical revelations about the nature and potential consequences of the CDC's all-disaster campaign. The first is a biopolitical justification for control produced out of fear of the threat posed by the diseased body. CDC zombie blog posts cover a wide variety of topics over the span of about a year starting with an introduction to the zombie preparedness topic (Khan, 2011a) to the CDC's role at Dragon Con (McCollom, 2011) and projects inspired about the CDC campaign (Okupniak, 2012). The doctor in charge of the campaign, Ali Khan, credits a wide range of influences including several George A. Romero films, the *Resident Evil* franchise, and Max Brooks' *Zombie Survival Guide*. The latter's importance is emphasized in a subsequent blog post detailing an interview with Max Brooks about his own inspirations:

The notion of a walking plague also terrifies me, and that comes from growing in the 1980s. When I was a kid, I watched AIDS go from an obscure, arcane curiosity to a global pandemic. What drove me crazy was that unlike the Black Death or the Spanish Influenza, AIDS could have simply been stopped by a pamphlet: A couple dos and don'ts, a little education and clear-headed leadership and it might have

ended up as a footnote in a virologists' medical text. If that's not zombies, I don't know what is. (Khan, 2011b)

As the inspiration behind the CDC's all-disaster campaign, Brooks' association here between Zombies and global pandemic disease outbreaks such as AIDS, the Black Death, and the Spanish Flu is notable for their conflation of the diseased body with flesh-eating monsters. Although the campaign is intended for all hazards, Brooks revealingly exposes the underlying tie between the CDC's mission to combat disease and the use of the zombie apocalypse metaphor in their public engagement campaign. The association between zombies and disease is not benign, as Gomel (2000) notes "disease is one of the central tropes of biopolitics, shaping much of the 20th-century discourse of power, domination, and the body" (p. 407). Historically, when the diseased body becomes a threat to society, the response has been exclusion, expulsion, and extermination of the diseased. Millennialist rhetorics of endism and electism are extended by this association because the plague brings the promise of mass death through the project of purification which by hook or by crook will leave the moral elect intact. The societal body is cleansed through "the apocalyptic process of purification. The intertwined goals of purity and health structured the Nazi praxis of genocide" (Gomel, 2000, p. 422). In reality, we know that the zombie virus is a fictionalized plot device, and no disease that we know of turns people into the cannibalistic undead. However, the truth of our frail condition belies Brooks' assertion that complex diseases can be solved by a pamphlet. All disease is zombie-like in the sense that carriers are simultaneously victims and possible victimizers. The diseased body is ontologically threatening; its very existence can existentially undermine our own.

Although the critique of zombie apocalypticism offered in this article would apply regardless of campaign effectiveness, the impact of this apocalyptic logic can be seen in research designed to test such effectiveness. One of the CDC's stated objectives for the zombie preparedness campaign is making an all-hazards emergency kit. Officials in the campaign tout how great the zombie metaphor is at connecting with folks to realize this objective:

What makes zombies the perfect preparedness mascot? When you walk up to a person and start talking about the undead they have all kinds of preparedness ideas, most involving food, water, and other life essentials which just so happen to be the same items that we recommend people put in their disaster kit. So, the old adage really holds true, if you're prepared for zombies, then you're prepared for anything. (Tucking-Strickler, 2012)

Houghton et al. (2016) noted that when testing this objective, kids routinely missed most Federal Emergency Management Agency (FEMA) suggested items (such as first aid, tools, sanitation, bedding, etc.) except food and water. They

did, however, tend to list weapons leading the authors to caution that "a potential byproduct of zombie preparedness may be an unanticipated focus on, and glorification of, guns and knives" (Houghton et al., 2016, p. 98). Several commenters on the zombie blog also mentioned the need for weapons: Donovan Young wrote "I might suggest adding a baseball bat, preferably aluminum, to your emergency kit as well," and Drew added "Only thing I've got to say is, double tap, baby" (Khan, 2011a). I am not making any claim about whether weapons ought to be included in emergency kits or not, but they are not listed in the CDC's campaign as necessary items for the zombie apocalypse. However, given the violent imagery and plot that accompany zombie media, it seems intuitive that weapons would be desirable when facing the insatiable organdevouring walking dead. Weapons seem pretty useless in many real-life disasters though such as earthquakes, tsunamis, and typhoid outbreaks. Perhaps then real preparedness is not the point. The juxtaposition of the necessity for violence in the zombie apocalypse with the omission of the tools for violence in the emergency kit is revealing. Through enthymematic logic, the CDC makes a case even if inadvertently—for the necessity of violence in disaster response without elucidation.

A final skeptical revelation can be discerned in the graphic novel made for the CDC's zombie preparedness campaign (CDC, 2011), which depicts a white male protagonist (Todd) struggling to save his girlfriend (Julie) and dog (Max) from a zombie pandemic. Apocalyptic masculinity is built on a patriarchal paranoia and perfectionism, the traces of which are endemic to American culture (Quinby, 1999b) and apparent in the visual and textual relationship of Todd and Julie. Paranoia "is a component of normative heterosexist masculinity that has been projected onto the figure of the homosexual" (Quinby, 1999b, p. 3); the zombie is a queer body whose existence threatens the heteronormative order. The intimate touch of the zombie is potentially transformative for the "normal" human; zombieness, like queerness, is read as a contagion to be quarantined from the healthy, straight body. It seems appropriate then that the protagonist couple of the CDC's graphic novel would embody this paranoia in their heteronormative configuration.

Todd affirms his masculine self by being the revealer of knowledge, the decider of action, and the protector of family in both dialogue and visual representation throughout the story. Julie effaces her own strength by adopting tropes of femininity that establish her as clueless to the reality of the outbreak and constantly in need of Todd's protection. The masculine savior narrative is reiterated once Todd and Julie make it to a CDC containment zone, where male soldiers with large guns stand guard against the zombie infestation. Within the containment zone is a perfected gendered order where weakened feminized bodies are protected by militarized masculine subjects. However, as zombie media has taught us, there is no military fortification that can last forever against the zombie horde. Like Jezebel, the corrupting influence of a zombie instantiate

an "apocalyptic gender panic [...] that sense of alarm, consternation, and anger that results from the loss of male authority" (Quinby, 1999a, p. 100). At the end of the graphic novel, the military is overcome and presumably Todd and Julie are consumed (another parallel to Jezebel's fate). Of course, that is before the story is revealed to be just a dream of Todd's brought on by late-night horror viewing. His nightmare serves as a prophetic warning for readers to get a kit, make a plan, and be prepared.

#### Conclusion

The CDC's zombie preparedness campaign may have effectively increased audience engagement with disaster preparedness and response messaging, but research has shown that such engagement did not necessarily translate into internalization of disaster preparedness principles (Fraustino & Ma, 2015; Houghton et al., 2016). Even if the campaign had been successful at encouraging more substantive audience engagement, I contend that its reliance on activating the cultural zeitgeist of zombie apocalypticism carries with it very problematic rhetorical entailments that must be acknowledged and revealed. By combining a cultural studies lens and interdisciplinary theories of apocalypticism, this article employs an apocalyptic rhetorical analysis to unveil the entailments of the CDC's campaign and, more broadly, provide an analytical tool for technical communicators working in disaster response and risk communication.

Technical communicators can avoid some of the problems posed by apocalypticism identified in this article by using their rhetorical skills to (a) resist technocratic approaches to communicating about risk and (b) unveil apocalyptic patterns in their own work. If risk is socially constructed, then communication about risk must account for more than just expert knowledge. For example, if the CDC had taken stock of the comments made by audiences on their zombie apocalypse blog, then they could have corrected the impression that weapons belong in a disaster preparation kit. In addition, technical communicators ought to be attuned to the pervasiveness of apocalypticism in our culture and work toward unveiling the habits and revealing the implications of apocalyptic rhetoric in the public engagement campaigns we design.

Although the use of apocalypticism in risk rhetoric can help to engage the public, its entailments complicate effective reception of the message by the audience and, more important, are capable of extending racialized and gendered logics. The CDC's zombie preparedness campaign is a case study in how the linearity of technocratic risk communication inhibits rhetorical awareness of cultural contexts as well as the active participation in the social construction of risk. Apocalyptic rhetorical analysis is broadly applicable for technical communicators engaged in existential risk rhetoric concerning climate change, nuclear technology, terrorism, and any other topic where apocalyptic rhetoric may be invoked. As advocates, technical communicators must be cognizant of the

rhetorical choices we make as well as the implications of those choices on various stakeholders—ourselves as authors, the audience as active participants, and to a much larger extent, society as a whole.

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