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The Role of Information Communication Technologies (ICTs) in Shaping Identity Threats and Responses

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The Role of Information Communication Technologies (ICTs) in Shaping Identity Threats and Responses

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Abstract

With the rising use of social media, people are increasingly experiencing, and responding to, identity threats online. This sometimes leads to online backlash via "cybermobs" or the creation of online social movements that traverse offline. Prior information systems (IS) research on identity threats and responses largely focuses on information communication technology (ICT) implementations within organizations in an offline context. Therefore, we lack understanding of ICT-mediated identity threats and responses and ways to promote healthier and productive interactions online. This two-essay dissertation seeks to fill this gap. Essay 1 combines a review of ICT-mediated identity threats with a qualitative study (based on interviews) to examine: (a) the types of identity threats that ICT enables; and (b) the nature of effects of ICT on identity threats. Essay 2 is a mixed-methods study that investigates how the identity threat and response process (ITARP) can evolve when mediated by ICT. The study is based on event sequence analysis of ICT-mediated ITARP in 50 viral stories where identity threats were triggered online, supplemented by interview data from individuals involved in some of the stories. Results suggest four distinct patterns of ICT-mediated identity threats and responses. Cumulatively, the results from the two essays highlight the role of digital media in influencing both ICT-mediated identity threats as well as the process of identity threat and response.

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I. Introduction and Overview of Dissertation Research

An identity refers to individuals' sense of who they are or who they perceive others think they are (Breakwell, 1983). With the increased use of information and communication technologies[1] (ICTs)—through the ubiquity and availability of the Internet, the proliferation of mobile devices, and the popularity of social media—notions of identity are taking on new importance and meaning.

An identity threat occurs when individuals' identity is challenged or disrupted in some way by a thought, action or experience (Breakwell, 1983), while a coping response is the strategy that the threatened individuals undertake to deal with that disruption (Lazarus & Folkman, 1984). Figure 1.1 depicts a schematic of the identity threat and response process (ITARP) employed by identity scholars to research this phenomenon (e.g., Nach & Lejeune, 2010; Petriglieri, 2011).

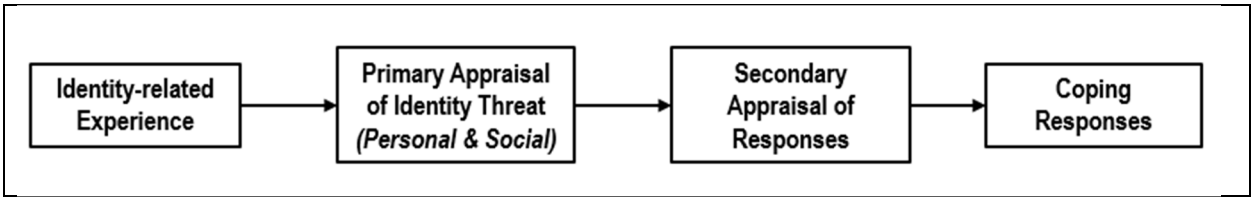

Figure 1.1: Identity threat and response process (ITARP)

As individuals use ICTs to consume various types of digital content, they may experience perceived threats to their own identity and then use ICTs to cope with these threats. Thus, ICTs are increasingly acting as the medium through which ITARP is triggered and unfolds over time. Hence, there is a need to better understand the role of ICTs in ITARP cycles to point to interventions and mechanisms to shape positive, constructive outcomes and mitigate or eliminate the harm that stems from these cycles.

[1] Information and communication technologies (ICTs) are a multiplex phenomenon involving numerous actors and technologies. Specifically, in my context, I define ICTs as ***communication technologies***, and include various forms of ***digital media***, such as social media, online news media, mobile communication technologies (Jha, Pinsonneault & Dube, 2016; Majchrzak Markus, & Wareham, 2016; Miranda, Young & Yetgin, 2016; Oreglia & Srinivasan, 2016).

The Two Essays

In my dissertation, composed of two essays, I investigate the intersection of ICTs and ITARP. In my first essay, I review literature on ICT-mediated identity threats and conduct interviews to better understand how ICTs influence identity threats. Essay 2 is a mixed methods study in which I investigate the evolution of ICT-mediated ITARP. In this study, I conduct an event sequence analysis-cluster analysis on 50 stories that went viral when identity threats were triggered online, leading to a series of actions in response. This study was augmented by semi-structured interviews with individuals involved in some of the stories.

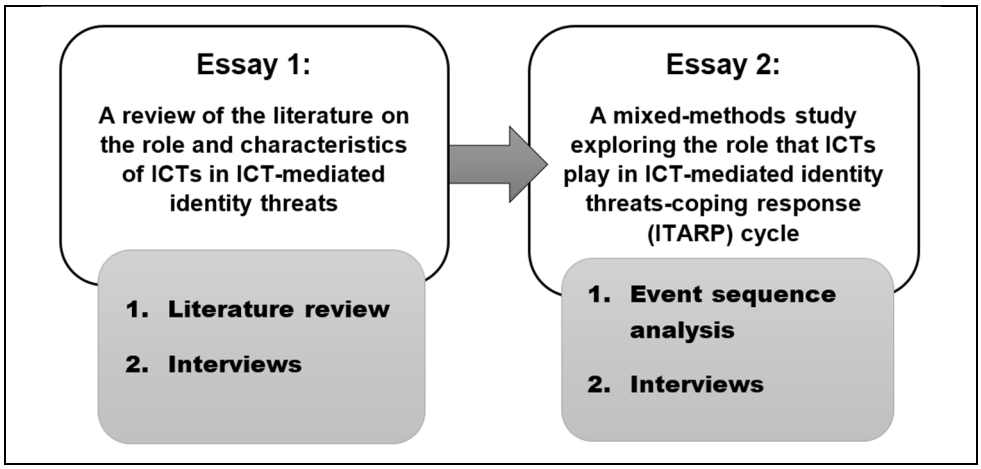

Figure 1.2 Overall structure of the two-essay dissertation

Findings from the two essays highlight the role of ICTs (and digital media, in particular) in triggering and perpetuating identity threats in the ITARP cycle. My dissertation explores ITARP in an ICT-mediated context. Few ITARP studies engage in a longitudinal analysis of the phenomenon, despite the fact that ITARP is inherently a *process*. Often, studies evaluate the coping responses that individuals undertake to respond to a specific identity threat. As such, research predominately views the ITARP cycle from the target's perspective and rarely considers the actions or experiences of the source of the identity threat.

One reason I refer to ITARP as a "cycle" is because considering both the target's and source's actions in evaluating identity threat experiences and responses reveals that there is a tight interplay between the two, whereby the target's responses can trigger identity threats for the source, and they react to each other in ways that continue the cycle. Existing process-focused research on ICT-mediated ITARP has treated the process as linear (e.g., identity threats prompt responses, which lead to outcomes), whereas my dissertation study reveals that it can operate as a cycle with feedback loops. The cyclical versus linear approach of viewing the ICT-mediated ITARP process makes no assumption that the process will end. For individuals and organizations, this means the identity threats may persist, prompting continued responses to cope with the threats.

My study also contributes to the ICT-mediated identity threat literature by proposing a holistic framework that illustrates how ICTs influence identity threats. With the heightened use of ICTs, especially digital media, there has been an increase in the volume and intensity of identity threats experienced online (Duggan, Lee, Smith, Funk, Lenhart, & Madden, 2017). While prior studies have examined the role of certain ICT characteristics, such as anonymity, in influencing identity threats (e.g., Hardaker & McGlashan, 2016), there is no comprehensive framework that identifies and integrates the various ICT characteristics that impact identity threats. An integrative conceptual model can help guide academics and practitioners alike in determining the different avenues via which ICTs affect identity threats, which, in turn, can guide the development of comprehensive interventions to prevent, reduce or eliminate the harm that results from ICT-mediated identity threats.

Moreover, rather than focus exclusively on the targets of identity threats, my research considers the broader network of relevant actors in the ICT-mediated ITARP cycle. A prominent

focal ITARP actor is the source of the identity threat, whose online activity frequently results in offline repercussions, such as being fired or demoted. Furthermore, other focal actors often include the employers and social identity groups of the target and source, sympathetic actors, social media platforms, and online mainstream media. Specifically, digital media—both online news media and social media—mainly function to sustain the momentum of the ICT-mediated ITARP cycle. Social media platforms, in particular, are facing pressure to become more proactive in how they address identity threats perpetrated via their platforms. For example, the Chief Executive Officers of both Facebook and Twitter are required to appear before the United States Congress in September 2018 to explain how they plan to address potential threats targeted at political identity before the November 2018 elections (O'Sullivan & Herb, 2018). Thus, another contribution of my dissertation is the study of the overall network of actors who have a stake in the ICT-mediated ITARP cycle, which yields a more comprehensive understanding of the complex interactions involved in the ICT-mediated ITARP cycle.

Overview References

Breakwell, G. M. (1983). *Threatened identities*. New York: John Wiley & Sons.

Duggan, M., Lee, R., Smith, A., Funk, C., Lenhart, A., & Madden, M. (2017). Online harassment 2017. The Pew Research Center, July 11, 2017. (Available at http://www.pewinternet.org/2017/07/11/online-harassment-2017/).

Hardaker, C., & McGlashan, M. (2016). "Real men don't hate women": Twitter rape threats and group identity. *Journal of Pragmatics*, *91*, 80-93.

Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping*. New York, NY: Springer Publishing Company, Inc.

Nach, H., & Lejeune, A. (2010). Coping with information technology challenges to identity: A theoretical framework. *Computers in Human Behavior*, *26*(4), 618-629.

O'Sullivan, D. & Herb, J. (2018). Congress to press Facebook, Twitter on lack of coordination against Russian troll threat. *CNN*. August 2, 2018. (Available at https://money.cnn.com/2018/08/02/technology/facebook-twitter-russia-coordination/index.html).

Petriglieri, J. L. (2011). Under threat: Responses to and the consequences of threats to individuals' identities. *Academy of Management Review*, *36*(4), 641-662.

II. Essay 1: Understanding ICT-mediated Identity Threats

Introduction

Identity is a concept that answers the question "who are you?" with the pronoun "you" referencing either an individual or social group (including organizations) (Schwartz, Luyckx, & Vignoles, 2011). Thus, an identity can be described as the set of meanings that individuals use to define themselves either as a person (such as friendly or sociable), as a role occupant (such as an employee or parent), or as a member of a social group (such as female or American) or organization (Burke, 2007; Nach & Lejeune, 2010). In the Information Systems (IS) discipline, there has been increasing interest in leveraging identity theories to explain a variety of IS phenomena, including IT identity (e.g., Carter & Grover, 2015); group/organizational identity (e.g., Boudreau, Serrano, & Larson, 2014); coping responses to IS implementations (e.g., Nach & Lejeune, 2010) and; personal, social and role identity (e.g., Whitley, Gal, & Kjærgaard, 2014).

In the last ten years, the Internet has been widely used for social media, both for individuals and businesses (ITU News, 2010), and with that, identity threats have taken on new forms, with various Information Communication Technologies (ICTs)[2] being used to perpetuate identity threats. In this dissertation study, I adopt Breakwell's (1983) definition of *identity threat*, which refers to any thought, action or experience that challenges an individual's personal, social or role identity. The individual (or group) who perpetuates an identity threat is described as the source, and the recipient(s) of identity threats are referred to as the target. The heightened role of the Internet and digital media in triggering identity threats has largely resulted because of ICT characteristics that enable, amplify, accelerate or otherwise provide a platform or medium for these interactions.

[2] ICTs are communication technologies that include various forms of digital media, such as social media, online news media and mobile communication technologies (Jha et al. 2016, Majchrzak et al. 2016, Oreglia & Srinivasan, 2016).

Increasingly, news stories are highlighting the important role of ICTs in exposing and shaping identity threats. For example, in 2018 alone, digital media have contributed to disseminating numerous stories of minorities who believe they were targets of identity threats in personal and business settings. In April 2018, Starbucks came under fire when an online viral video depicted two black men being arrested after a Starbucks employee called the police to report that the two men were trespassing (Gayle, 2018). In response, Starbucks announced they would close more than 8,000 stores in May 2018 to conduct racial-bias training for employees (Starbucks, 2018). Similarly, in July 2018, another online viral video showed a CVS manager calling police to report a black female customer who tried to use a store coupon he believed to be fraudulent (but was later determined to be legitimate). In response, CVS issued a public apology and fired the two employees involved in the incident (May, 2018). Social media users have begun creating nicknames for the sources of these identity threats, for example, calling the CVS manager "Coupon Carl" and dubbing others involved in similar stories as "Barbeque Becky," "Permit Patty," and "Pool Patrol Paula," to name a few (Edwards, 2018). This has led to the creation of hashtags of these nicknames, which trend on social media, as users condemn the actions of these individuals, transforming them into memes for social media ridicule and shaming (Wootson, 2018).

As these examples show, ICTs are a medium through which identity threats are exposed and spread, with multiple stakeholders experiencing some type of identity threat. Individuals, groups, and organizations are all susceptible to being targets of identity threats. In the Starbucks example, digital media disseminated the online video and news about the two black men involved in the incident, highlighting the identity threat they experienced by the Starbucks employee's reported racial profiling of them. Furthermore, the public backlash that Starbucks

experienced in response to this incident posed an identity threat to the company. Potentially, if the Starbucks employee defined herself as someone who supports diversity and inclusion, then the employee may have experienced an identity threat as well, given that she was portrayed as someone who racially profiled the two men. Finally, those who perceive they belong in the same social identity group as the black men (i.e., racial identity) could have also experienced an identity threat as they learned about the story, including watching the online viral video.

While the majority of IS research on identity threats has focused on threats arising from new IS implementations in organizational settings (e.g., Bala & Venkatesh, 2015; Cowen & Hodgson, 2015; Mishra, Anderson, Angst, & Agarwal, 2012; Nach & Lejeune, 2010), some studies have examined identity threats mediated by ICTs, such as online broadcast media (e.g., Schmalz, Colistra, & Evans, 2015), interactions in online forums (e.g., Yeshua-Katz, 2016), or online learning (e.g., Kizilcec, Saltarelli, Reich, & Cohen, 2017). However, little is known about the role of ICTs in mediating identity threats. Thus, the objective of this study is to examine the role of ICTs in creating identity threats, with the following specific research questions:

- *What types of identity threats are enabled by ICTs?*
- *What are the characteristics of ICTs that influence ICT-mediated identity threats?*

To address these research questions, I summarize relevant identity theories, including those concerning identity threats, and review literature on ICT-mediated identity threats. Furthermore, I conduct interviews with individuals who are exposed to potentially identity threatening information from online news stories to further delve into the types of identity threats enabled by ICTs. To explore the characteristics of ICTs that influence identity threats, I probe and synthesize the literature related to ICTs and identity threats, such as online toxic

disinhibition (Lapidot-Lefler & Barak, 2012), and leverage the interview data. This research extends existing theory by exploring the role of ICTs in shaping identity threats.

Theoretical Background

Identity

Before elaborating on identity threats, it is important to understand the concept of identity. An *identity* is the set of meanings that individuals use to define themselves either as a person (such as friendly or sociable), as a role occupant (such as an employee or parent), as a member of a group (such as female or American), or as a member of an organization (Burke, 2007; Nach & Lejeune, 2010). Individuals have multiple identities; for example, a woman could see herself as a female, student, mother, daughter, doctor, choir member and an American. The salience and importance of each of these identities increases or decreases depending on various factors, such as the environment and need (Petriglieri, 2011). While at work, the salience of the "doctor" identity for this woman increases, and when she is home with her children, the importance of the "mother" identity moves to the forefront and becomes more prominent.

Personal, Social and Role Identity

To better understand identity and the self, researchers have attempted to decompose various identity concepts (Breakwell, 1983). For example, as far back as 1890, William James saw *the self* as comprised of the spiritual self, the material self, the social self and the bodily self, concluding that an individual's complete identity is the sum of many parts of their identity (Breakwell, 1983; James 1890). Other researchers approached the topic from the objective-subjective aspect. Looking at the self objectively means that the individual sees herself/himself as though through a mirror (e.g., "Who am I?"), while looking at the self subjectively means that the individual sees herself/himself from the perspectives of others (e.g., "How do others see

me?" or "What do others think of me?"; Breakwell, 1983). Thus, an individual's identity is a sum of many parts, which includes personal, social and role identities.

Individuals' *personal identity* stems from the part of one's self-concept that is free of role associations and relationship determinants or group memberships; rather, it is based on an individual's unique characteristics and traits (Breakwell, 1983; Petriglieri, 2011; Schwartz et al., 2011). For example, a person may see himself/herself as healthy, smart, and punctual. An individual's *social identity* (or group identity) is the part of one's self-concept derived from group memberships (Ashforth, 2001; Tajfel, 1978; Tajfel & Turner, 2004). For example, being a member of a students' association is a social identity. Another social aspect of identity is referred to as *role identity,* which is the internalization of role expectations that is invoked in relation to the counter-identity, e.g., teacher to student and husband to wife (Burke & Tully, 1977; McCall & Simmons, 1978). Contrary to social identity, role identity hinges on role relationships rather than group memberships.

These three forms of identity are often so intertwined that it is not always possible to delineate them (Breakwell, 1983). For example, a person's gender identity represents personal, social and role identities. A woman can perceive her female identity in terms of the personal meanings she ascribes to this identity (i.e., personal identity), independent of meanings associated with her membership in the broader female social identity group or her role relationship to males. However, she may also define her female identity based on her social categorization as a woman (i.e., social identity) and her perceptions of the role expectations of being a female vis-à-vis being a male (i.e., role identity). At the same time, her female role identity can help her maintain her personal and social identity by causing her to act in such a way as to confirm and maintain those identities (Stets & Burke, 2000).

Identity threats

There are numerous definitions of identity threats in the literature. For example, Petriglieri (2011, p. 644) defines "individual-level" identity threats as the experiences appraised as having the potential to cause harm to the meanings, value and enactment of identity; while Aronson and McGlone (2009) focus on social identity threats, defined as the psychological discomfort experienced when people are confronted by unflattering group or individual reputation. Table 2A provides a summary of key definitions. Breakwell's (1983) definition of identity threat—when a thought, action or experience challenges an individual's personal or social identity—is more comprehensive than the other definitions because it considers both personal and social identities. Because social identity and role identity are both socio-relational aspects of identity, Breakwell (1983, 1986) considers role relationships and group memberships as part of one's social identity. In my dissertation, I therefore adopt and extend Breakwell's definition to conceptualize an identity threat occurring *when a thought, action or experience challenges an individual's personal, social or role identity*.

--- Insert Table 2A here ---

Identity threats and identity theories

This study leverages two identity theories, viz., social identity theory and self-categorization theory to help clarify what an identity threat is and how the identity threat challenges one's identity. According to social identity theory (SIT), individuals define their social identities by classifying themselves into various categories—that is, self-categorization—which enables them to make sense of their social environment and define themselves within that social environment (Ashforth & Mael, 1999; Tajfal & Turner, 2004). It is this notion of categorization which self-categorization theory (SCT) builds on, arguing that the individual will

either consider interclass similarities and differences (a comparative fit) or consider social behavior and stereotype expectations (a normative fit) to evaluate how well they fit into different categories (such as gender, age or organizational membership) (Hornsey, 2008; Turner, Hogg, Oakes, Reicher & Wetherell, 1987).

Thus, based on SIT and SCT, an identity threat to an individual's personal identity might also challenge his/her social identity and his/her role identity. The level at which the individual evaluates his/her comparative or normative fit into the different categories will determine the level to which the identity threat will affect him/her.

Types of identity threats

Prior research on identity threats reveals that there are several different types of identity threats. A review of the identity threat literature allowed me to identify these different types of identity threats. Because there is a blurring of the boundaries between personal, social and role identities (Breakwell, 1983), all identity threats described next apply to these three identities. Thus, the main types of identity threats according to prior literature are the following:

***Threat to distinctiveness*:** Distinctiveness suggests that people value being unique and different from others, for example, being the first female to go to space (Breakwell, 1986). Distinctiveness threats target the uniqueness of an individual or group or the meanings and assumptions that define their identity. Specifically, distinctiveness threats prevent the individual or group from asserting their uniqueness from others (Branscombe et al., 1999; Elsbach, 2003; Petriglieri, 2011). For example, IS scholars may experience a distinctiveness threat if they are perceived to be the same as computer science scholars.

***Threat to value*:** Threats to value are those that challenge or question an individual's or group's importance (Breakwell, 1986). More directly, a threat to value occurs when one individual/group feels as though they are perceived as less important than others. For example,

the Black community in the United States formed the Black Lives Matter movement because they believed they were perceived as less valued than other ethnic groups/races in the country.

***Threat to status*:** Status is the prominence, respect and influence that an individual or group holds relative to other individuals or groups (Anderson, Srivastava, Beer, Spataro, & Chatman, 2006). Threat to status occurs when that standing fails or is challenged. For example, in a work environment, members of higher status groups may find it difficult to accept criticism from a manager who is a member of a lower status group (Geddes & Konrad, 2003).

***Image spoiling*:** An organization can engage in intentional efforts to cause a specific party to perceive another less favorably (Mohamed & Gardner, 2004). For example, in the 1980s, British Airways engaged in a smear campaign against Virgin Atlantic by circulating false and damaging information about Virgin Atlantic's services and financial position (Mohamed & Gardner, 2004). At the individual level, this would be considered defamation of character.

***Identity taint / Stigma*:** Prior research identifies three categories of taint, or stigma: physical, social and moral (Ashforth, Kreiner, Clark, & Fugate, 2007; Vaast & Levina, 2015). Social taint involves contact with stigmatized populations or servile relationship with others. For example, a psychiatric ward attendant's or a maid's work is considered to be socially tainted. Moral taint occurs when an individual is associated with something that is ethically questionable in its purpose, consequence or methods; for example, a casino manager's or an exotic entertainer's work is considered to be morally tainted (Vaast & Levina, 2015). Individuals who perform dirty work come to be seen as "dirty," e.g., a janitor's work is considered to be physically tainted. Stigma is a process by which others reject an individual because due to a characteristic or attribute they possess (Goffman, 1963). The main types of stigma are associated

with culture, gender, race or illness/disease (e.g., mental illness stigma or stigma associated with being HIV-positive; Goffman, 1963)

***Stereotype threat / Categorization threat*:** This threat occurs when individuals are seen in a negative light due to their group membership (Steele, 1987) and are categorized in terms of their group membership rather than their individual merit (Branscombe et al., 1999). Generally, individuals who experience stereotype threats perceive they are being prejudged based on their group membership (e.g., race, gender, ethnicity) versus their personal qualities (e.g., intelligent, capable, etc.).

***Acceptance threat*:** This threat occurs when an individual's position within a group is undermined (Branscombe et al., 1999). An acceptance threat can manifest when the individual receives negative feedback from their in-group. For example, an individual attempting to join a fraternity may experience uncertainty about being accepted into the group; similarly, individuals whose group membership entails a probationary period may feel anxious about their being able to become a fully-fledged member.

***Identity denial threat*:** This is the tendency of others to doubt or fail to recognize an individual's group membership because the individual looks different or their skills are different from the prototypical group member (Branscombe et al., 1999). For example, questions like "Where are you really from?" are indicator of an identity denial threat for individuals who do not "fit the image" of Americans (Cheryan & Monin, 2005).

Sources of identity threats

Identity threats can stem from the individuals themselves, their social world, and the material (or physical) world (Breakwell, 1983; Petriglieri, 2011). An individual threatens himself/herself when he/she encounters an identity conflict or an identity-threatening action. One

way this can happen is through an illness or disease that changes that individual's identity (Breakwell, 1983). Identity threats can also originate from the social world. These are threats from other social actors with whom the individual interacts. A challenge to an individual's allegiance to an in-group presents an identity threat, as does prejudice experienced by virtue of being a member of a group—in this case, the threat is from the outgroup (Petriglieri, 2011). Identity threats from the material or physical world originate from external events (Breakwell, 1983; Petriglieri, 2011). For example, a tornado sweeping across a city where an individual lives could destroy his home and livelihood, thus reducing him from being self-reliant to being economically destitute.

In this essay, I focus on *sources of identity threats from the individual's social world*, given the various interactions between different social actors that are enabled by ICTs.

ICT-mediation

My dissertation focuses on how ICTs act as enablers or mediators of identity threats; therefore, it is important to define ICT-mediation. Prior organizational research conceptualizes ICT-mediation as the way in which ICTs intervene in organizational work processes, thus contributing to their transformation; that is, ICTs make organizational processes more transparent and improves the ease of analysis and control (Kelly, 2005; Zuboff, 1988). ICT-mediation in educational settings serves as an intervention to increase learning support to students, teach students critical thinking skills, improve teaching practices (e.g., Ng'ambi & Johnston, 2006; Orlando, 2013). ICT-mediated communication is based on characteristics of ICTs[3] (such as ubiquity, and simultaneous and immediate interactions) and is used to shape communication patterns, allow routines for connecting people, and maintain a connected

[3] For example, video, audiotapes, telephones, the Internet

presence (Nedelecu & Wyss, 2016). In my study, I adopt this view of ICTs as a communication medium because it best describes how digital, social and communication media allow people to connect and communicate.

Literature review of ICT-mediated identity threats

A review of the literature on identity threats found a total of 248 peer-reviewed journal articles published in the period leading up to October 2017, with the oldest dated 1977. Of these, 46 articles are conceptual and 202 are empirical. Most articles (over 30%) evaluate stereotype threats, including ethnic and gender stereotype threats, while 59 articles investigate threat to value—both individual and social identities. The remaining articles examine stigma (mostly stigma associated with mental illness), threats to distinctiveness (both individual and social), identity denial threats, acceptance threats, and threats to status. When categorizing the studies by identity threat types, stereotype threat is mostly associated with gender or sexual identity (25 articles) followed by ethnic identity (20 articles). In the studies, stigma mostly maps to illness identity with a total of 14 articles revealing this association. Threat to status is associated with either an individual's identity, a group's identity, or an overlap of the individual or group identity. Of the 248 studies on identity threats, only 28 studied ICT-mediated identity threats.

ICT-mediated identity threats

A survey of the prior literature on the role of ICTs in enabling identity threats identified 28 empirical articles, of which 20 investigate identity threats specifically in ICT contexts. The remaining eight studies assess identity threats that took place offline with the individuals' resulting behaviors spilling over to the online environment. Thus, the following discussion focuses only on the 20 articles related to ICT-mediated identity threats.

A review of the disciplines that have studied this phenomenon shows that some of the studies are in communication (Sanderson et al., 2016; Warschauer et al., 2002; Yeshua-Katz, 2016), some are in IS (Nosko & Wood, 2010; Oeldorf-Hirsh et al., 2017), others are in education (Christy & Fox, 2014; Kizilcec, et al., 2017), and the remaining studies are in other disciplines (e.g., social psychology, Maass et al., 2003). Additionally, only eight of the studies leveraged theory in discussing ICT-mediated identity threats—for example, Oeldorf-Hirsh et al. (2017) who used theories of embarrassment, Schmalz et al. (2015) who leveraged social identity theory, and Yeshua-Katz (2016) who used computer-mediated communication theory, boundary theory and theory on stigma. In terms of methods, most of the studies employed laboratory experiments and surveys; a few analyzed text (e.g., Ben-David & Matamoros-Fernandez, 2016; Carney, 2016); and the rest used other methods (e.g., Sanderson et al. (2016) used constant comparison methodology). The ICT media in the studies varied from online support groups (e.g. Yeshua-Katz, 2016), to virtual environments (e.g., Christy & Fox, 2014; Maass et al., 2003) and social media (e.g. Sanderson et al., 2016; Schmalz et al., 2015).

While the studies do not always explicitly discuss the types of identity threats involved, using the types of identity threats I identified from the literature, I mapped the identity threat types to each study (see Table 2B). An examination of the literature shows that ICTs enable stereotype threats to gender identity in virtual environments (Christy & Fox, 2014) and online (Yeshua-Katz, 2016). Stereotype threats to social identity are also enabled in an online learning environment. Kizilcec et al. (2017) found that the online environment exacerbated social identity threats to people in least developing countries (LDCs) who felt unwelcome while trying to learn in Massive Open Online Courses (MOOCs), which they believed were predominantly skewed toward Western cultures of learning. The research also shows that social media enables threats to

self-identity (Oeldorf-Hirsh et al., 2017) and to personal/group identity, especially stigma (Nosko & Wood, 2010). Stigma and threat to self-identity were also triggered by online broadcast media in the case of the people who identified with Penn State during the Sandusky scandal (Schmalz et al., 2015). Online news media often act as a medium for the perpetration of identity threats—i.e., when the news of a scandal breaks, as was the case in the Sandusky scandal, the constant rehashing of the story can trigger an identity threat to individuals who share an identity (Penn State affiliation) with a threatened individual or group.

--- Insert Table 2B here ---

Although the research reveals that ICTs are involved in different types of identity threats, very little research has pointed to the nature of these identity threats and how ICTs mediate these threats. This study aims to fill this gap.

Research Methodology

The purpose of this study is to build on prior research on ICT-mediated identity threats to examine different types of identity threats enabled by ICTs and to determine characteristics of ICTs that influence identity threats. Because there are few studies on this phenomenon, I engaged in an exploratory qualitative field study. With my co-chair, I developed an interview guide (see Table 2C). The interviews were aimed at understanding perceptions of how ICT-mediated content shapes different types of identity threats. Following seminal guidelines for conducting the qualitative interview (Myers & Newman, 2007), I interviewed 17 individuals of diverse backgrounds who had experience using ICTs. Because research shows that online news content can directly trigger identity threats in individuals (Schmalz et al., 2015), I presented the respondents with potentially identity threatening information from online news articles. For my inclusion criteria of news stories, I chose online articles about individuals who had been targets

of identity threats or controversial stories about identity. Further, I selected stories that represented a variety of identities, e.g., race, gender, and religious. I initially selected 12 articles and one video clip. My dissertation co-chair reviewed the online news articles, removed some and substituted others such that the final set of news stories consisted of seven articles and the video clip, totaling eight stories. I presented the stories to all participants and asked them to share their reaction with me. In a separate portion of each interview, I asked respondents to identify characteristics of ICTs that influence the perceptions or experiences of identity threats.

--- Insert Table 2C here ---

I started the interviews by defining the concept of identity and then asked each interview participant to list or describe their various identities. I also defined the concept of an identity threat and furnished examples. I then showed each participant all online news stories listed below, one at a time, while providing them the opportunity to read the stories and associated reader comments, if available. Following this, I requested that they describe their reaction to each story and explain whether any of their identities was threatened in any way. Consequently, I asked the interview respondents to reflect on the online news stories and related reader comments and then identify characteristics of ICTs that influenced the perceptions of identity threats. Synopses of the stories are found in Table 2D.

- Why this women's march photo is such a big deal
- Trump's travel ban is the most controversial policy almost nobody was begging for
- Sikh community asks for hate-crime probe after man is told "go back to your own country" and shot
- Sold out women-only screenings of Wonder Woman spark controversy

- Conservative host Tomi Lahren under fire for calling BlackLivesMatter "the new KKK": as critics say her comments are "reckless"
- Tulsa officer acquitted in fatal shooting of unarmed black man
- Gizoogle: Amusing tribute or racist caricature?
- Video: Exposing gender bias in the workplace

--- Insert Table 2D here ---

Participants

The participant group was composed of university students and adult non-students. I started with a convenience sample of students and non-students and then used a snowball sampling technique to identify additional participants for my study. In total, I interviewed 17 individuals. Eight of them are male, and nine are female. Ages range from approximately 24 to over 70 years. Five are graduate students, ten are adult professionals and two are currently unemployed. Each interview lasted approximately 40 minutes and was audio-recorded upon receiving the permission of the respondents. See Tables 2E and 2F for additional details about the participants (e.g., demographics) and interviews (e.g., duration) collected.

--- Insert Tables 2E and 2F here ---

Data Analysis

All interviews were audio-recorded and transcribed. The transcripts were loaded into *MAXQDA* for coding. Following a bottom-up, inductive analysis of the data (Van Maanen, 1979; Van Maanen, 1988), the coding process was structured in terms of first-order informant-driven concepts, second-order researcher-induced themes, and aggregate analytical dimensions. To derive first-order concepts, I used concepts expressed in the respondents' own words to discern patterns among their responses. Then, leveraging literature and theory, I categorized these

concepts into second-order themes, from which I abstracted the aggregate dimensions. During the coding process, I discussed my coding and analysis with my dissertation co-chair. She reviewed my coding of all transcripts, and we resolved any disagreements of coding to consensus. I continued to code the interviews, enfolding literature where appropriate, until no new concepts emerged, reaching theoretical saturation (Glaser & Strauss, 1967).

Results

The majority of respondents (16 out of 17) that I interviewed said that they consumed news online. In addition, except for that one who did not receive news from online sources, the rest of them revealed that they did not obtain news from just one source but from several ICT-mediated sources. For instance, one interviewee told me that their news sources included Google, Twitter, TV and online news websites.

> *"I get a lot of news off my phone. I've got a Google app that brings up some headlines, and there's some other ways that bring up headlines…alerts through Twitter…follow people or organizations that link to news…watch news on TV, local sometimes and also CNN & MSNBC…political and science news." – Participant 11*

Some revealed that they could not rely on a single source as they did not trust the news media and instead would turn to social media for news that was "less processed," for example, one participant said to me,

> *"When it comes to politics, I'm more likely to trust, for example, Twitter because it's not processed, you know…less likely to trust CNN or FOX News because of the political correctness. So it's more processed. So because of that, I'm more likely to be faithful to Twitter and go there and trust those news. Also Facebook is the same thing; it's less processed. So a user can post whatever he wants to post and you can read it." – Participant 8*

This speaks to the perceptions of credibility or reliability that the participants feel that online news media have and the perception that news on social media is less filtered and less

strategically packaged, as it is with mainstream media. However, as discussed later, some participants also believed that news from social media is just as questionable.

For the different types of online news sources, 7 participants relied on mobile phone apps, 2 participants went to online newspapers, 1 went to podcasts, 3 went to social media (e.g. Facebook, Twitter) and 3 consulted user-contributed websites (e.g., Wikipedia, Reddit). In terms of the different media used, the majority used a combination of mobile phones (6); television (6); other devices (10), such as computers or laptops; and hardcopy newspapers (2). One interviewee also received news via e-mail. From the aggregation of data, it was clear that most of them consumed news via ICT-enabled media. Table 2G shows the news sources by participants. Table 2H shows the data structure that emerged from my data analysis, and Table 2I contains representative quotes from participants reflecting the second-order themes.

--- Insert Tables 2G, 2H, and 2I here ---

Identity threats enabled by ICTs (online news media and social media)

In most interviews, respondents stated that they felt at least one of their identities was threatened by certain online news articles. Thus, the identity threats they experienced were direct rather than vicarious. From the interviews, I found that one of the identity threats experienced by the participants was ***threat to distinctiveness***. For example, during my interview with Participant 13, I asked her to reflect on the news article about a Quinnipiac poll that inquired how many Americans supported or opposed a travel ban that was being proposed for people from certain Muslim majority countries. (It later came to be known as the Muslims travel ban.) The participant, who identified as American, felt that policy decisions were being made in her name (by virtue of being American) without anyone asking her for her views. She felt that her differing position was not respected.

> *"Because one has to differentiate oneself from this, and if it's a poll and a large number of people that statistically fall into this category, then there's a threat to what my opinion, how it's valued." – Participant 13*

She felt distinct from the people who had been polled and, thus, the news article threatened her distinctiveness and misrepresented her views as an American.

In my interview with Participant 6, we talked about a news article that featured a story of a Texas theatre that was advertising a female-only pre-screening of the *Wonder Woman* movie. The theatre had advertised that no males were allowed, including the venue staff, the projectionist and the culinary team. Participant 3, who identified as a black female, informed me that there was more to a gender identity than just gender. For example, she said,

> *"I did like the idea that that was a focus on…women, but you know there's another side to this. Living in northwest Arkansas, and we have the black sororities and the black fraternities, they would do a showing of a black movie. Like Hidden Figures, the Deltas did a showing and promotion with a theater." – Participant 3*

This ties in with intersectionality theory which argues that systems of oppression do not operate in isolation but work together to produce inequality (Collins 1990; Crenshaw 1991; Viruell-Fuentes, Miranda, & Abdulrahim, 2012). For example, black feminists have in the past argued that there is no one gender experience because, for them, their experiences were shaped by race and class (Collins 1990; Crenshaw 1991). Thus, according to this participant, an intersectionality identity should receive considerations for its unique challenges. She went on to tell me,

> *"Sexism for white women is different for sexism for Hispanic women or black women or Native American women or Asian women. It differs based on race." – Participant 3*

Thus, the *Wonder Woman* news article represented a threat to her by not recognizing her distinctiveness as a black female.

Another threat that was expressed by the interview participants was ***threat to value***. This type of threat is directed at the importance of an individual's or group's identity (Breakwell, 1986). Concerning the screening of *Wonder Woman*, one female participant told me that excluding men was the wrong approach, and instead, it should have been inclusive of men, given that there are men who have a feminist identity and support women. She said,

> *"So it wouldn't have felt that a group was being left out because there are some men who actually promote and support girl power." – Participant 3*

Another respondent expressed the same views,

> "*As a female, I feel that to isolate oneself as a gender that the other gender is not welcome to, no guys allowed, to me that threatens who I am as a woman." – Participant 13*

Thus, the respondents believed that the all-female screening threatened their feminist identity, which values the inclusion of men who also espouse a feminist identity.

A prominent threat that emerged from the interviews was ***stereotype or categorization threat***. Different news article stories triggered a stereotype threat to different interview participants. For Participant 13, it was the news article about a Sikh man who was told to return to his country and then was shot. She said to me,

> *"I feel ashamed to be a part of a group that rightly or wrongly is judged to be racist and threatened in the sense of having to defend that I don't want it to be that way in my interactions. The article itself poses a conflict that in my heart that I don't want to be a part of a group that does that…as an American I feel embarrassed, sometimes, to call myself an American because there's Americans that act like this. If I were talking to others, like the Sikh community, I would probably be embarrassed to say I'm American because of people like that…" – Participant 13*

She perceived that Americans are stereotyped as being racist and xenophobic and, thus, felt shame to be associated with this identity group. For Participant 5, it was the news story of the acquittal of a Tulsa police officer who had killed an unarmed black man that presented a stereotype threat. Participant 5 told me,

"Yes, because it was a white police officer who shot a black person. In the comments, I just know for a fact that it's just going to be, 'Well, that's what he gets because he's black.' That challenged me because I am a black male. My skin is black, so that's what they see." – Participant 5

Participant 13 identified with a source of an identity threat and experienced a stereotype threat, while Participant 5 identified with a target of an identity threat and experienced a stereotype threat.

Another threat that was triggered was ***threat to status***. Threat to status occurs when an individual feels that their status in terms of prominence, respect and influence relative to others is challenged (Anderson et al., 2006). I showed Participant 16 (who identified as male) a news video clip of two co-workers, a man and a woman, who had decided to switch names and pretend to be each other as a social experiment. Their jobs required them to send emails to clients with proposals and solutions. At the end of that day, the woman explained that it was her best day because the customers did not try to second-guess her or question everything she told them; while the man said it was his most frustrating day ever. For Participant 16, this triggered the memory of a similar experience that he felt was a direct threat to male identity when his female co-worker received more acknowledgement than he did. He reflected on that memory telling me,

"I think this type of notion threatens my identity because a lot of times as a man in workplace, I felt that I didn't get my work because my coworker was so beautiful that my VP was always looking at her, and what I was saying sometimes didn't make sense because here is a beautiful young woman sitting and here is this short, fat guy sitting so even though we are both directors in a meeting, sometimes she got a better ear than I did." – Participant 16

A threat that was also expressed by some interview participants was ***image spoiling***, which happens when an individual or group engages in efforts to present another in a less favorable light. In the news article of the Muslim ban, one interview participant who identifies as Muslim felt threatened and expressed sadness that Muslims were being portrayed in such a

negative light, to the point that there seemed to be intentional spoiling of the image of Muslims via a proposed ban of these individuals from entering the country. This participant said,

> *"When you create a ban and you basically outcast a bunch of people specifically from majority Muslim countries, you're basically telling your people that, hey, it's okay to ban these people; therefore, Muslims are bad." – Participant 16*

Another threat that emerged was ***identity denial threat***. An identity denial threat occurs when others fail to recognize an individual's group membership because that individual looks different or their skills are different from the prototypical group member (Branscombe et al., 1999). In response to the story of the Sikh man who was told to go back to his country, Participant 5, who identified as half-American and half-Mexican reflected,

> *"That would challenge me because I am biracial and half-Mexican, that is. They [Americans] love to say that to Mexicans, go back to their country. That would challenge me because I am half-Mexican, so yes, that would challenge me" – Participant 5*

In this case, the participant felt that because he is biracial, there was a possibility that others could fail to recognize that he was also American.

Finally, some participants expressed frustration that their identities had been subject to ***identity taint or stigma***. In response to the story about the gendered social experiment in the workplace, a male participant explained it invoked frustration that women regarded certain male-oriented jobs with stigma and were unwilling to pursue these jobs, instead desiring equality for jobs in office settings only.

> *"The whole workforce thing, it's almost 100% of garbage workers, coal miners…they're all men, and they [women] are not screaming equality for that, but when it comes to air conditioned office jobs, they are." – Participant 2*

As shown from the responses of interview participants, ICTs—at least, in the form of online news media and social media comments—can invoke the following identity threats: threat to distinctiveness, threat to value, threat to status, acceptance threat, stereotype threat, image

spoiling, identity denial threat and stigma/taint. Table 2J summarizes the perceived identity threats per participant. Next, I turn my attention to the characteristics of ICTs that play a role in triggering these identity threats.

--- Insert Table 2J here ---

Features of ICTs that enable Identity Threats

ICT-mediated identity threats are possible because certain qualities or properties of ICTs facilitate the triggering of these threats (Orlikowski, 1992). I explained to the interview participants the definition of an identity threat, asked them to reflect on the online news stories (see Table 2D), and then inquired about their perceptions of the features or characteristics of ICTs that enable identity threats. When analyzing the interview data, I also referenced the literature to augment or extend findings from the interviews. In the discussion that follows, the ICT-enabled mechanisms that trigger identity threat are shown in bold and reflect findings from both the interviews and relevant literature.

Personalization

Personalization is an ICT characteristic that emerged from the interviews and literature as facilitating identity threats. According to Participant 10, personalization reinforces already held beliefs (confirmation bias) and increases polarization. He said,

> *"The personalization of news actually contributes to reinforcing the bubble that people build around themselves…the tendency of news organizations to feed their viewers more of what they want has contributed to the growing divide in our country and probably throughout the world, and the growing polarization that's happening." – Participant 10*

Personalization is a concept that originated from the ecommerce and marketing literature and refers to personalized offerings based on the preferences of customers (Lee & Lin, 2005; Lee, Ahn, & Bang, 2011). Similarly, social media and mobile technologies use personalization and filtering features to keep their users engaged on their platforms. Internet search engines such

as Google and Yahoo are known to use algorithms to determine search results based on individuals' preferences (Hannak, Sapiezynski, Molavi Kakhki, Krishnamurthy, Lazer, Mislove, & Wilson, 2013). In other words, different users searching for the same topic may obtain different results based on personalized factors, such as geographical location and previous search history. Therefore, personalization enables identity threats through the creation of ***filter bubbles,*** which ensure that people are directed to only stories and features that are similar to their viewpoints while isolating opposing viewpoints (Negron, 2017). Filter bubbles also encourage users to organize themselves into ***echo chambers***. Echo chambers describe a closed system of communication between people who are seeking to reinforce their own viewpoints, that is, validate their own confirmation bias, and has been found to enable social polarization (Barberá, Jost, Nagler, Tucker & Bonneau, 2015). Research supports this with studies showing that that politically active Internet users tend to organize into homogenous insular communities (Conover, Ratkiewicz, Francisco, Gonçalves, Menczer, & Flammini, 2011).

Socialization

Because ICTs are communication technologies, a core feature of ICTs is socialization, which refers to policies and practices embedded in ICTs that support social interactions (Preece, 2001). Online communities and forums attract users based on shared viewpoints (Brown, Broderick, & Lee, 2007). Socialization influences identity threats in ICT-mediated contexts via deindividuation and echo chambers. ***Deindividuation*** is described as the lack of self-awareness and self-regulation while the individual is among group members (Diener, 1980). When users lose their self-awareness and self-regulation, they are more prone to engage in flaming and trolling behaviors. Flaming is the use of hostile, insulting language in computer-mediated or

electronic communication, while trolling refers to being deliberately antagonistic online, usually for amusement's sake (Hardaker, 2013; Wang & Hong, 1995).

Furthermore, socialization—particularly with respect to insulated communities organized based on common viewpoints and interests—can lead to ***echo chambers***. Existing research has found that echo chambers facilitate the perpetuation of online hate and bullying by fueling shared biases and polarizing different identity groups (Usher, Holcomb, & Littman, 2018). As Participant 1 observed,

> *"It supports tribalism amongst people. People find more members of their own group and when that group does feel threatened, I've seen some very disgusting things on the internet that ... Men feel like they're being attacked by feminist so they respond with anger. Certain websites are dedicated to that kind of thing and it's very disturbing to me and I think technology has definitely fostered that. Because now you can find someone who thinks like you, no matter the distance from them. So people all over the country can go to this one Reddit website and they can reinforce their own beliefs and solidify their own community. Their own little personal tribe." –Participant 1*

Anonymity

Another feature that many of the interview participants discussed was anonymity, which is also widely investigated in the literature. One respondent, after reading some of the negative comments in the online news articles (comments sections), concluded that this was only possible due to the anonymity that the Internet afforded online users. This participant said,

> *"They're completely anonymous, feeling like there's no possible social repercussion for what you do or say." – Participant 1*

This refers to the online ***disinhibition*** effect (Suler, 2004), which allows users to believe there is a lack of repercussions due to anonymity. In the supporting literature, Calvert (2003) proposes that the anonymity afforded by the Internet promotes a sense of impunity, allowing people to be uninhibited in what they say and do because they believe there will be no consequences for their behavior. Two other participants also reflected on the way in which

anonymity emboldened people to be unguarded, saying whatever they wanted freely, without fear of punishment:

> *"Anonymity—it makes people more bold." – Participant 15*

> *"Technology gives you the liberty to be anonymous and…say anything…I think it gives you the option to open up your heart without worrying about people knowing who you are and who's written this comment." – Participant 17*

These notions of anonymity are supported in prior literature where researchers have found that anonymity on the Internet offers the protection of dissociation (Suler, 2004). That is, users can partially or completely dissociate their real-life (in-person) identity from their online identity, being able to separate their actions from their in-person identity. This means that whatever they say or do online cannot be easily linked to their real physical lives (Suler, 2004); in turn, anonymity increases users' propensity to act upon normally inhibited impulses (Hardarker, 2013; Sia, Tan, & Wei, 2002; Siegel, Dubrovsky, Kiesler, & McGuire, 1986).

Furthermore, the social identity model of ***deindividuation*** effects (SIDE) framework argues that anonymity and group immersion reinforce group salience and conformity to group norms (Postmes, Spears, & Lea, 1998). For example, an individual may feel free to anonymously conduct themselves online in a manner that conforms to in-group norms that are threatening to the out-group. Online anonymity encourages a wide array of inflammatory behaviors, such as trolling and flaming (Hardarker, 2013), which can manifest as identity threats. Hence, anonymity and the social detachment it affords prompt people to compose and share thoughts online (e.g., by trolling them) that they likely would not say when face-to-face with the other person, thus inflaming interactions (Alonzo & Aiken, 2004; Wang & Hong, 1995).

Velocity

A number of respondents pointed to the speed at which news and information, in general, spreads quickly online.

"With technology, everything is very fast and spreads quickly." – Participant 12

"The speed of technology is so much." – Participant 16

Another went further and discussed how, in the modern digital age, media can reach their target audience in a matter of seconds compared to pre-Internet media.

> *"In terms of the media, what used to take a week maybe to get out there, gets out there more rapid or very fast, in seconds, you know, so you can reach your audience, the audience, your target audience much faster than you used to." – Participant 15*

In the big data literature, velocity describes the speed at which data is generated (Chen et al., 2012; Gandomi & Haider, 2015). Additionally, in the ICT-mediated communication literature, transmission velocity refers to the speed at which the ICT medium is able to deliver messages, generally involving immediate feedback and interactivity (Dennis et al., 2008). The speed at which news and information flows online combined with the volume makes it difficult to corroborate and/or refute information, including identity-threatening information, thus leading to ***misinformation*** (Fernandez & Alani, 2018).

Moreover, because velocity enables immediate interactions, users tend to share content online without fully thinking about the content of their interactions or the consequences of sharing information before posting (Annisette & Lafreniere, 2016). This impulsivity promotes online ***harassment*** behaviors (Floros, Siomos, Fisoun, Dafouli, & Geroukalis, 2013). Furthermore, the speed at which multiple harassment behaviors take place online creates many challenges for social media platforms to manage this threatening behavior (Guberman & Hemphill, 2017).

Additionally, velocity contributes to the ***shallowing effect,*** which is the notion that individuals' brains are being re-wired to be more emotionally shallow through use of rapid, back-and-forth communication technologies (Annisette & Lafreniere, 2016). The emotional shallowness reflects reduced empathy for others, which enables users to feel less guilt when attacking others online (Barlińska, Szuster, & Winiewski, 2013).

Reach

A common feature that the interview participants mentioned was the ability of the Internet to allow people to communicate messages at a distance, which provides users with "a wall" behind which they could hide (irrespective of anonymity). Participant 8 reflected on the possibility of being able to send a message to someone who was miles away, eliminating the need to travel in order to communicate an identity threatening message.

> *"I think it's easier to hide yourself behind your phone and send a text message to somebody who is maybe 2000 miles away than going face to face and saying such kind of things." – Participant 8*

Participant 14 further elaborated on how this ICT characteristic makes people feel safer to communicate negative or hateful messages that can trigger identity threats.

> *"If you're in front of somebody and you're saying a controversial thing to that person or saying something that is more hateful, you have to face them in the eyes and be able to say that, whereas if you're using social media or some kind of chat room or something like that, you can hide behind not being able to look directly at that person and say that statement…" – Participant 14*

This ability to interact with individuals across a distance in ways that are not readily available in face-to-face contexts is called reach (Overby, 2008). Reach refers to the ICT's capacity to allow individuals to interact with one another across time and space and facilitates interactions between people that would not otherwise take place (Overby, 2008). According to the literature on reach, it could serve to facilitate identity threats in a number of ways. The first is

in the way the respondents allude to, in terms of providing the sheer protection of distance. As Participant 14 explains,

> *"People use it as a platform to say things that they probably wouldn't say otherwise, because they have that protection of being behind a wall if you will, to say what they think." –Participant 14*

Thus, reach promotes what is referred to as the online ***disinhibition*** effect by allowing individuals to be invisible (Suler, 2004). As opposed to anonymity, which also promotes online disinhibition (discussed next), the invisibility permitted by reach allows people to communicate freely online without regard to seeing others' physical reactions, whether they be facial expressions or even harmful physical reactions. As Participant 4 stated, *"There's nothing you can do. There's nobody to grab…it's just an empty void."* Therefore, the reach/distance provided by ICTs shapes identity threats via disinhibition.

Additionally, because reach enables individuals to interact at a distance, it has also been found to promote remote identity threatening behaviors, such as cyberstalking, which is a form of online harassment (Pittaro, 2007). Online **harassment** is defined as threatening, offensive or embarrassing behavior targeted at others (Ybarra & Mitchell, 2008).

Veracity

Another characteristic of ICTs—or more specifically, of the information made available via ICTs—was simply the accuracy of information that is being shared. Issues concerning trust in online information emerged, with respondents expressing doubts about the veracity of the news published online. Participant 13 lamented,

> *"Truth and information can be batted back and forth like a ping pong ball on these responses [social media comments]." – Participant 13*

She further explained that one of the contributing factors to the spread of false information among social media users is that each opposing side believes they are correct, even when they may not be.

Another participant opined that social media is not trust-worthy because anyone could write anything and sound credible even if they were not.

> *"Just 'cause it's posted on Facebook doesn't mean it's real…things can be written to where they sound pretty credible and they're not at all." – Participant 4*

One participant commented that it is challenging to distinguish between fact and fiction online and that verifying this information is difficult as well.

> *"I don't pay attention as much to the news stories on my social media because of the revelation that we've been receiving fake news so it's hard to distinguish between what is fact and what is not." – Participant 14*

In the big data literature, veracity refers to the correctness and accuracy of the data (Chen et al., 2012; Gandomi & Haider, 2015). The main mechanism through which veracity can impact identity threats is through ***misinformation.*** That is, when inaccurate information is spread online, there is more opportunity for users to form negative biases that are based on invalid information. Furthermore, research has pointed to the specific role of social media in spreading misinformation, including "fake news" (Allcott & Gentzkow, 2017).

Volume

One prominent characteristic that respondents described was the mere volume of news and information available online. Some, like Participant 14, used descriptions like feeling "bombarded" by the volume of online news: *"Because we are bombarded and inundated with news as much as we are."* One participant referred to the *"overwhelming amount of information"* available online. Another respondent said that that the massive volume of online news causes people to feel ***desensitized***,

> *"The volume of our news, bad news or good news, everything is desensitizing us, so the volume itself, even though it gives us a lot of information, it's desensitizing our thoughts." – Participant 16*

Thus, these participants noted that the vast amount of news that is disseminated online reduces empathy and encourages people to more readily engage in identity threatening behaviors.

In the literature on big data, volume refers to the sheer amount of data, generally described in terms of terabytes and petabytes (Chen, Chian & Storey, 2012; Gandomi & Haider, 2015). Information volume has been linked to cognitive overload (Eppler & Mengis, 2004), and research has shown that exposure to large amounts of negative content can lead to desensitization (Carnagey, Anderson & Bushman, 2007).

Moreover, there is support in the literature about the sheer volume of information available online that makes it difficult for traditional gatekeeper oversight and quality control roles to keep up with vetting process, resulting in ***misinformation*** (Metzger & Flangin, 2013). Because misinformation has been found to involve spreading false rumors about others or events in an uncontrolled manner via social media (Shao, Ciampaglia, & Flammini, 2016), its contents can be the source of identity threats.

Reprocessability

Participant 14 described how viewing news stories online results in being presented with the same stories repeatedly, which she believed contributed to her increasing desensitization to negative social and political events.

> *"When we see the same story over and over and over again… it's almost like I am becoming desensitized to it." – Participant 14*

This ICT characteristic describes reprocessability, defined as the extent to which the medium allows individuals to reexamine and reprocess a message repeatedly, event after it has

passed (Dennis, Fuller, & Valacich, 2008). ICTs provide a technical platform which allows an event to be viewed "over and over," either within the context of the communication event or after it is over. For example, the media tend to repeatedly show violent or terrorist acts on video; at the same time, it is typically published online with unlimited access, thereby ensuring that people can consume the content repeatedly (Crosson, 2015). The effect of this is ***desensitization***, which by definition is a reduced emotional response (i.e., diminished empathy) to negative stimulus due to repeated exposure to it, and has been shown to result from exposure to negative stimuli online (Funk, Baldacci, Pasold, & Baumgardner, 2004).

Micro-messaging

Some respondents referred to the micro-messaging feature of micro-blogs, such as Twitter, which limit how many characters a user can share in a single message. On Twitter, until very recently, users were limited to 140 characters per tweet. The respondents commented that micro-messaging degrades the quality of interaction between individuals online, which could lead to inflammatory interactions and identity threats, even "packing a bigger punch," as commented by Participant 13.

> *"It shortens the message itself, and therefore, it can pack a bigger punch." – Participant 13*

> *"They reinforce yelling and short things. I feel like Twitter, by limiting the number of characters, people aren't talking back and forth." – Participant 1*

One mechanism via which micro-messaging promotes identity threats is via the ***shallowing effect.*** According to the shallowing hypothesis, this kind of brevity observed in social media interactions can reduce reflective thought (i.e., cognitive shallowness) and diminish empathy (i.e., moral shallowness) (Annisette & Lafreniere, 2016). Participant 13 described this problem in the following way,

> *"We're trying to use a tool in a way that's too blunt and not capable of carrying the responsibility and care and compassion and kindness that needs to be inherent in a conversation in which you're trying to understand another person and allow them their opinions." – Participant 13*

Individuals with reduced reflective thought and empathy may be more prone to interact online in ways that inflict identity threats on others.

Altogether, the results from the interviews and literature yield the emergent model that integrates ICT characteristics, identity threat mechanisms, and identity threats (see Figure 2.1).

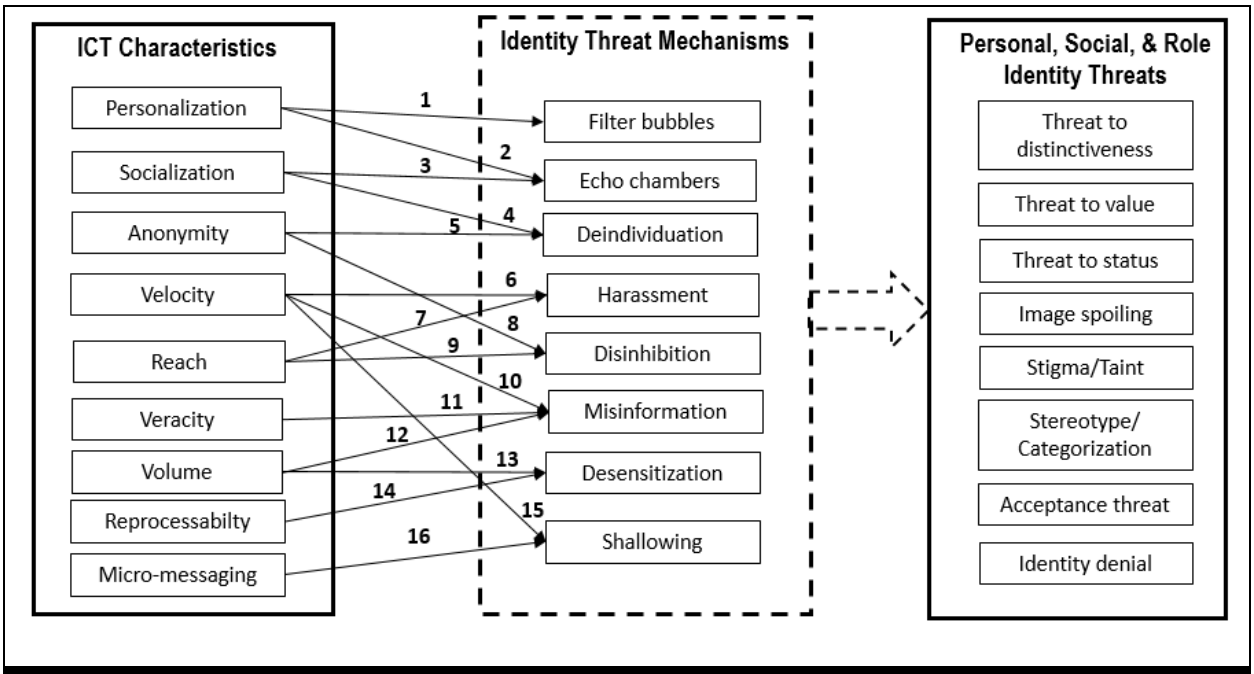

Figure 2.1: Emergent model of ICT-enabled identity threat mechanisms

The first column shows the ICTs characteristics that make it possible for ICT-mediated identity threats to occur. The second column in the figure shows the identity threat mechanisms that these ICT characteristics enable, which then influence personal, social and role identity threats. The ICT characteristics and identity threat mechanisms can be aggregated to a higher level of abstraction as shown in Figure 2.3.

Discussion

Increasingly, the media is covering many stories regarding ICT-mediated identity threats and the subsequent consequences suffered by both individuals and business alike. Often, this news coverage prompts much online discussion about the stories, via the online articles themselves (if there are comments sections) and via sharing the stories on social media. Because many people consume news online now, this has become a source for ICT-mediated identity threats (Patwardhan & Yang, 2003; Schmalz et al., 2015).

A review of literature revealed most prior IS research has primarily focused on identity threats experienced by employees when faced with new technology implementations in organizational settings. However, there are studies in other disciplines that focus on ICT-mediated identity threats that occur online, such as studies in feminist literature exploring ICT-mediated identity threats in the form of online misogyny and online harassment (e.g., Han, 2018). Many of these studies generally lack theory and focus on specific identity types and/or types of identities. As such, it is important to investigate the way ICTs mediate and shape threats to individuals' identities.

Types of Identity Threats Enabled by ICTs

To directly address my first research question, findings in this study show that online news media can generate personal and social identity threats. While this finding is supported in Schmalz et al. (2015), results from my study show that many different identity threats can be triggered from online news media, including the social media comments that are often embedded within the articles. For some respondents, it was not the information in the news article itself that provoked an identity threat, but the comments from online readers. Specifically, the identity

threats that emerged are threat to distinctiveness, threat to value, threat to status, acceptance threat, stereotype/categorization threat, image spoiling, identity threat denial, and stigma/taint.

Furthermore, findings suggest that self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) explains how online users may experience social identity threats at higher levels of abstraction, thereby increasing the likelihood that identity threats will be triggered online. For example, someone with a Muslim identity may experience an identity threat when reading an online news story about a black person who experiences an identity threat—for example, from the article about the unarmed black man who was shot and the police officer was later acquitted. Rather than be threatened due to a black identity, these individuals would express feeling threatened due to their identity as a minority, thereby identifying with the black social identity group by expanding their self-categorization to a higher level of abstraction and identifying as a minority group member. Similarly, many male participants identified as being feminists, so when reading online news stories about sexism, they would admit to feeling a threat to their feminist identity. Another participant, who identified as white, stated that her identity as a human being was threatened when she consumed online news content about minorities and foreigners who appeared to be victims of identity threats:

> "*It's sad because that's threatening my identity as a human being, and I think that is the most important identity of every human being." –Participant 16*

Related to this is the concept of identity elasticity, which is the way that social constructions of social identity expand and contract as people renegotiate how they perceive their identities (Kreiner, Hollensbe, Sheep, Smith, & Kataria, 2015). Figure 2.2 illustrates this these concepts.

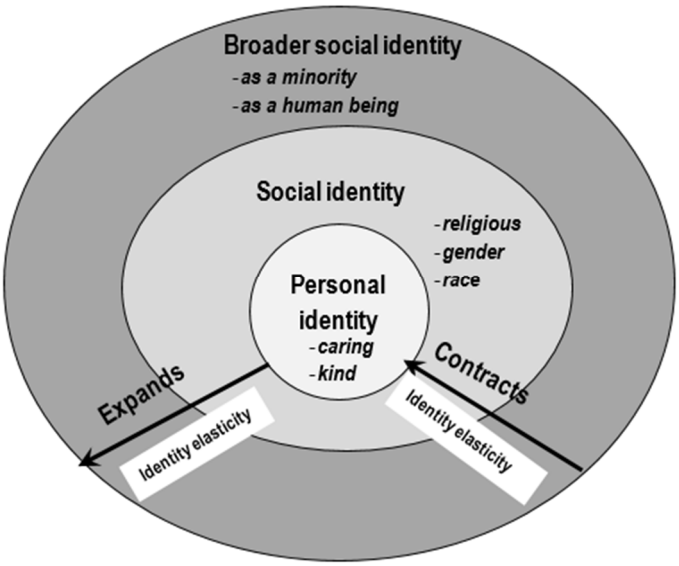

Figure 2.2: Elasticity of self-categorizations for ICT-mediated identity threats

Identity Threat Mechanisms Enabled by ICTs

To answer my second research question, I interviewed 17 individuals who were exposed to and had observed ICT-mediated identity threats to elicit their perceptions about the ICT characteristics and associated mechanisms that trigger these threats. Furthermore, I delved into the related literature to integrate the findings from the interviews with existing studies concerning ICT characteristics and harmful online behaviors (e.g., trolling, flaming). Findings indicate that several ICT characteristics shape the mechanisms that mediate identity threats. Figure 2.1 illustrates the emergent findings from this study that address my second research question. In the figure, I show preliminary proposed relationships between ICT characteristics and identity threat mechanisms, which enable ICT-mediated identity threats. Further, after considering the ICT characteristics and identity threat mechanisms, I categorized them based on similar characteristics and mechanisms to abstract concepts to a higher level. The resulting model is shown in Figure 2.3.

Both personalization and socialization can be considered as ***bias confirmation*** ICT characteristics, as they are the ICT features that insulate individuals based on their personal interests and viewpoints. Bias confirmation ICT characteristics predominately influence ICT-mediated identity threats through the aggregate mechanism of ***polarizing views*** via filter bubbles and echo chambers**.** Certain ICT characteristics serve in the role of ***amplification*** (reach, volume, and veracity) in that they magnify the harm triggered by ICTs, primarily through the aggregate mechanisms of ***inflicting harm*** via spreading harassment and misinformation**.** Both velocity and reprocessability can be categorized as ***acceleration*** ICT characteristics, as they quicken the experience of harm from the ICT-mediated identity threats. Acceleration ICT characteristics influence ICT-mediated identity threats through the aggregate dimensions of ***inflicting harm*** (harassment and misinformation) and ***muting emotions*** (desensitization and shallowing). Finally, anonymity and micro-messaging can be categorized as ***impersonalization*** ICT characteristics, which influence ICT-mediated identity threats via the general mechanisms of ***losing awareness*** (deindividuation and disinhibition) and ***muting emotions*** (desensitization and shallowing). The modified framework with abstracted concepts provides a more parsimonious presentation of the categories of ICT characteristics and identity threat mechanisms involved in ICT-mediated identity threats.

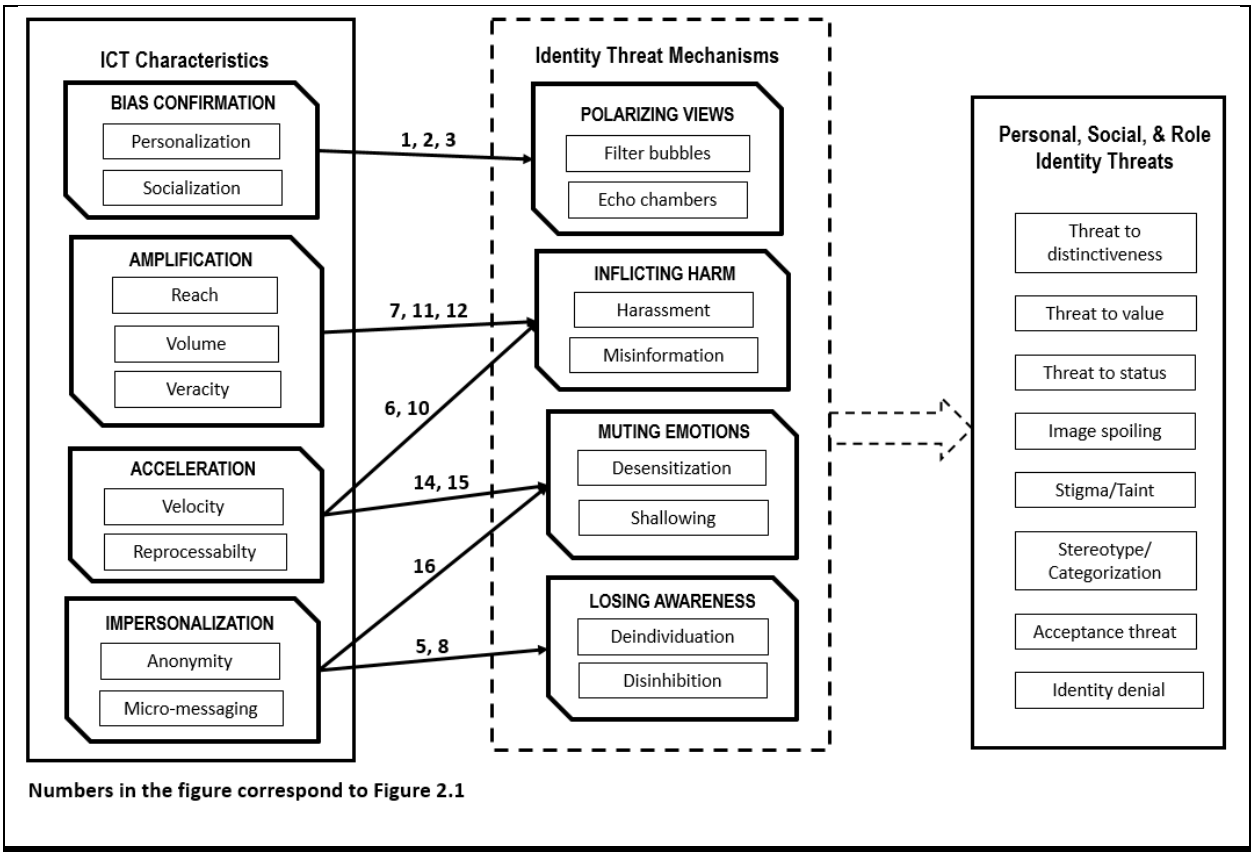

Figure 2.3: Abstracted model of ICT-enabled identity threat mechanisms

Limitations and Directions for Future Research

The limitations in this study primarily resulted from the methodology. First, I relied on a convenience sample and on qualitative interviews. Though I chose this method as an exploratory approach, it limits the insights I can glean to answer my research questions. Additionally, the interview guide was designed to possibly trigger identity threats in the respondents. However, the interview guide also included questions that tapped at the respondents' general opinion about ICTs' role in influencing identity threats. Thus, these two components of the interview guide are disconnected. Furthermore, given the nature of my research design, showing respondents online news stories, the study was not able to discern threats to personal identity in the same way a study on, for example, cyberbullying may have. Future research should consider alternative

designs to examine ICT-mediated threats to both personal and social identities to gain a more holistic understanding of this phenomenon.

Moreover, future research should consider other methods, such as experiments, to test different technology conditions (e.g., high richness versus low richness) and specific features of ICTs that may influence identity threats. In this study, most online news articles were text- and photo-based. There was only one high representation/richness story (with video) but it targeted only one identity (gender). Future research should evaluate the different types of identity threats and mechanisms of identity threat triggers featuring content that could potentially threaten a broader range of identities.

Contributions to Theory and Practice

On July 26, 2018, Facebook shares plunged by 19%, costing Facebook 119 billion US dollars (Goldman, 2018). The loss, reported to be the largest single-day loss for a publicly listed company in history, was attributed to their affiliation with a UK firm, Cambridge Analytica, accused of accessing and using personal information of Facebook users without their knowledge or permission (Goldman, 2018; Sharma & Vengattil, 2018). In the same period, Twitter, which had been accused of allowing online harassment on their platform, undertook a purge of accounts that had been used to spread misinformation and other identity-threating information in an attempt to restore trust (Jacobs, 2018; Shaban & Timberg, 2018). Twitter lost 21 percent of its stock afterwards (Shaban & Timberg, 2018). As these illustrations of Facebook and Twitter show, issues related to ICT-mediated identity threats can have a drastic impact on organizations, particularly social media platforms.

Extant research has often pointed to psychological characteristics as the antecedents to identity threats perpetrated via the Internet (e.g., online harassment), both from the perspective of

the source and the target of threat. For instance, Ybarra and Mitchell (2007) suggested that Internet bullies often have a history of being victims of harassment themselves. Conversely, Sengupta and Chaudhuri (2010) argued that prior (e.g., amount of online personal information previously disclosed) and current (e.g., active social connections) online behavior determine who becomes a target of identity threats. Focusing on individual characteristics alone ignores the important role that ICTs play in mediating identity threats.

Some research has focused on technological factors and threat mechanisms that influence ICT-mediated identity threats. For instance, Annisette and Lafreniere, (2017) focused on the shallowing effect brought about by micro-messaging. Hardaker (2013) references the disinhibition effect enabled by the ICT characteristic of anonymity as the reason an individual would act on a normally inhibited impulse. Other research points to the personalization and filtering features of technology that are the result of algorithms designed to keep users engaged as being enablers of identity threats through the creation of filter bubbles (Hannak et al., 2013). However, prior research on ICT-enabled mechanisms that trigger identity threats has tended to look at each of these mechanisms and ICT characteristics in isolation.

My dissertation study contributes to the literature on ICT-mediated identity threats by examining the ICT characteristics, the identity threat mechanisms they enable, and the resulting ICT-mediated identity threats triggered in a single, integrated model. Thus far, examining ICT characteristics, threat mechanisms, and the threats they trigger in isolation has not appeared to have had a lasting impact in reducing the number of people affected. For example, a Pew study revealed that 41% of Americans reported experiencing online harassment (including sexual harassment, cyberstalking and threat of physical harm) in 2017 compared to 35% in 2014 (Duggan, Lee, Smith, Funk, Lenhart, & Madden, 2017). Examining the ICT characteristics and

identity threat mechanisms in a comprehensive framework could better guide recommendations and suggestions for positive online engagement. Indeed, social media platforms could address the problem of identity threats perpetrated via their platforms when they can draw on a cohesive framework as opposed to a single-issue approach to resolving problems, which is the main contribution of this study.

Essay 1: References

Agnew, A., Forrester, P., Hassard, J., & Procter, S. (1997). Deskilling and reskilling within the labour process: The case of computer integrated manufacturing. *International Journal of Production Economics*, *52*(3), 317-324.

Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives, 31*(2), 211-36.

Alonzo, M., & Aiken, M. (2004). Flaming in electronic communication. *Decision Support Systems*, *36*(3), 205-213.

Álvarez-Mosquera, P. (2015). Underlining authenticity through the recreolization process in rap music: A case of an in-group answer to an identity threat. *Sociolinguistic Studies*, *9*(1), 51.

Annisette, L. E., & Lafreniere, K. D. (2017). Social media, texting, and personality: A test of the shallowing hypothesis. *Personality and Individual Differences, 115*, 154-158.

Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E., & Chatman, J. A. (2006). Knowing your place: self-perceptions of status in face-to-face groups. *Journal of Personality and Social Psychology*, *91*(6), 1094.

Aronson, J., & McGlone, M. S. (2009). Social identity and stereotype threat. *Handbook of stereotyping, prejudice, and discrimination research*, 153-178.

Ashforth, B. E. (2001). *Role transitions*. Wiley Encyclopedia of Management,

Ashforth, B. E., Kreiner, G. E., Clark, M. A., & Fugate, M. (2007). Normalizing dirty work: Managerial tactics for countering occupational taint. *Academy of Management Journal*, *50*(1), 149-174.

Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, *14*(1), 20-39.

Bala, H., & Venkatesh, V. (2015). Adaptation to information technology: A holistic nomological network from implementation to job outcomes. Management Science, 62(1), 156-179.Barberá, P., Jost, J. T., Nagler, J., Tucker, J. A., & Bonneau, R. (2015). Tweeting from left to right: Is online political communication more than an echo chamber?. *Psychological Science, 26*(10), 1531-1542.

Ben-David, A., & Matamoros-Fernandez, A. (2016). Hate speech and covert discrimination on social media: Monitoring the Facebook pages of extreme-right political parties in Spain. *International Journal of Communication*, *10*, 1167-1193.

Boudreau, M. C., Serrano, C., & Larson, K. (2014). IT-driven identity work: Creating a group identity in a digital environment. *Information and Organization, 24*(1), 1-24.

Braithwaite, A. (2016). It's about ethics in games journalism? Gamergaters and geek masculinity. *Social Media+ Society*, *2*(4), 2056305116672484.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat In N. Elmers, R. Spears & B. Doosje (Eds.) *Social identity: Context, commitment, content*, 35-58. Oxford: Blackwell.

Breakwell, G. M. (1983). *Threatened identities*. New York: John Wiley & Sons.

Breakwell, G. M. (1986). *Coping with threatened identities*. London: Methuen & Co. Ltd.

Burke, P. J. (2007). Identity control theory. *Blackwell Encyclopedia of Sociology*, 2202-2207

Burke, P. J., & Tully, J. C. (1977). The measurement of role identity. *Social Forces*, *55*(4), 881-897.

Calvert, C. (2003). Revisiting the voyeurism value in the First Amendment: From the sexually sordid to the details of death. *Seattle UL Rev.*, *27*, 721.

Carnagey, N. L., Anderson, C. A., & Bushman, B. J. (2007). The effect of video game violence on physiological desensitization to real-life violence. *Journal of Experimental Social Psychology, 43*(3), 489-496.

Carney, N. (2016). All lives matter, but so does race: Black lives matter and the evolving role of social media. *Humanity & Society*, *40*(2), 180-199.

Carter, M., & Grover, V. (2015). Me, My Self, and I(T): Conceptualizing Information Technology Identity and its Implications. *MIS Quarterly, 39*(4), 931-958.

Chatzakou, D., Kourtellis, N., Blackburn, J., De Cristofaro, E., Stringhini, G., & Vakali, A. (2017). Mean birds: Detecting aggression and bullying on twitter. In *Proceedings of the 2017 ACM on web science conference, June 2017* (pp. 13-22). ACM.

Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business intelligence and analytics: from big data to big impact. *MIS Quarterly*, *36*(4), 1165-1188.

Cheryan, S., & Monin, B. (2005). Where are you really from?: Asian Americans and identity denial. *Journal of Personality and Social Psychology*, *89*(5), 717.

Christy, K. R., & Fox, J. (2014). Leaderboards in a virtual classroom: A test of stereotype threat and social comparison explanations for women's math performance. *Computers & Education*, *78*, 66-77.

Collins, P. H. (1990). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. New York: Routledge.

Conover, M., Ratkiewicz, J., Francisco, M. R., Gonçalves, B., Menczer, F., & Flammini, A. (2011). Political polarization on twitter. *Icwsm*, *133*, 89-96.

Crenshaw, K. W. (1991). Mapping the margins: intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43, 1241-1299.

Crockett, M. J. (2017). Moral outrage in the digital age. *Nature Human Behaviour*, *1*(11), 769.

Crosson, D. (2015). Vicarious Trauma, the Media, and Police Brutality: When is enough, enough? April 15, 2015. Theravivie. https://www.theravive.com/today/post/vicarious-trauma-the-media-and-police-brutality-when-is-enough-enough-0001872.aspx.

Dennis, A. R., Fuller, R. M., & Valacich, J. S. (2008). Media, tasks, and communication processes: A theory of media synchronicity. *MIS Quarterly*, *32*(3), 575-600.

Diener, E. (1980). Deindividuation: The absence of self-awareness and self-regulation in group members. *The Psychology of Group Influence*, *209242*.

Douglas, K. M., & McGarty, C. (2001). Identifiability and self□presentation: Computer□mediated communication and intergroup interaction. *British Journal of Social Psychology*, *40*(3), 399-416.

Duggan, M., Lee, R., Smith, A., Funk, C., Lenhart, A., & Madden, M. (2017). Online harassment 2017. *The Pew Research Center, July 11, 2017*. (Available at http://www.pewinternet.org/2017/07/11/online-harassment-2017/).

Ecker, U. K. (2017). Why rebuttals may not work: the psychology of misinformation. *Media Asia*, *44*(2), 79-87.

Edwards, V. 2018. Trump-supporting white CVS manager dubbed 'Coupon Carl' calls police on a black customer because he didn't recognize the voucher she was trying to use, *The Daily Mail,* 15 July, 2018. (Available at http://www.dailymail.co.uk/news/article-5956011/White-CVS-manager-dubbed-Coupon-Carl-calls-police-black-woman-fraudulent-coupon.html).

Ekman, M. (2015). Online Islamophobia and the politics of fear: manufacturing the green scare. *Ethnic and Racial Studies*, *38*(11), 1986-2002.

Elsbach, K. D. (2003). Relating physical environment to self-categorizations: Identity threat and affirmation in a non-territorial office space. *Administrative Science Quarterly*, *48*(4), 622-654.

Eppler, M. J., & Mengis, J. (2004). The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The Information Society, 20*(5), 325-344.

Farkas, J., Schou, J., & Neumayer, C. (2018). Platformed antagonism: racist discourses on fake Muslim Facebook pages. *Critical Discourse Studies*, 1-18.

Fernandez, M., & Alani, H. (2018). Online Misinformation: Challenges and Future Directions. In *Companion of The Web Conference April 2018* (595-602). International World Wide Web Conferences Steering Committee.

Funk, J. B., Baldacci, H. B., Pasold, T., & Baumgardner, J. (2004). Violence exposure in real-life, video games, television, movies, and the internet: is there desensitization?. *Journal of Adolescence, 27*(1), 23-39.

Gandomi, A., & Haider, M. (2015). Beyond the hype: Big data concepts, methods, and analytics. *International Journal of Information Management, 35*(2), 137-144.

Garrett, R. K. (2009). Echo chambers online?: Politically motivated selective exposure among Internet news users. *Journal of Computer-Mediated Communication*, *14*(2), 265-285.

Gayle, D. 2018. Arrest of two black men at Starbucks for 'trespassing' sparks protests. *The Guardian*, April 16, 2018. (Available at https://www.theguardian.com/us-news/2018/apr/16/arrest-of-two-black-men-at-starbucks-for-trespassing-sparks-protests).

Geddes, D., & Konrad, A. M. (2003). Demographic differences and reactions to performance feedback. *Human Relations*, *56*(12), 1485-1513.

Geiger, R. S. (2016). Bot-based collective blocklists in Twitter: the counterpublic moderation of harassment in a networked public space. *Information, Communication & Society*, *19*(6), 787-803.

Glaser, B., & Strauss, A. (1967). Grounded theory: The discovery of grounded theory. *Sociology the Journal of the British Sociological Association, 12*, 27-49.

Goffman, E. (1963). Stigma: Notes on a spoiled identity. Jenkins, JH & Carpenter.

Goldman, D. (2018). Facebook just had the worst day in stock market history. *CNN Tech*. July 26, 2018. (Available at https://money.cnn.com/2018/07/26/technology/business/facebook-stock-drop/index.html).

Guberman, J., & Hemphill, L. (2017). Challenges in modifying existing scales for detecting harassment in individual tweets. In Proceedings of the 50th Hawaii International Conference on System Sciences, January 2017.

Hannak, A., Sapiezynski, P., Molavi Kakhki, A., Krishnamurthy, B., Lazer, D., Mislove, A., & Wilson, C. (2013). Measuring personalization of web search. In *Proceedings of the 22nd International Conference on World Wide Web*, May 2013, 527-538. ACM.

Han, X. (2018). Searching for an online space for feminism? The Chinese feminist group Gender Watch Women's Voice and its changing approaches to online misogyny. Feminist Media Studies, 1-16.

Hardaker, Claire. (2013). Uh. . . . not to be nitpicky….but the past tense of drag is dragged, not drug.: An overview of trolling strategies *Journal of Language Aggression and Conflict*, *1*(1), 58-86.

Hardaker, C., & McGlashan, M. (2016). "Real men don't hate women": Twitter rape threats and group identity. *Journal of Pragmatics*, *91*, 80-93.

Hardaker, C., & McGlashan, M. (2016). "Real men don't hate women": Twitter rape threats and group identity. *Journal of Pragmatics*, *91*, 80-93.

Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass*, *2*(1), 204-222.

ITU News. (2010). The rise of social networking. Changing the web as we know it. International Communications Union. July-August 2010. http://www.itu.int/net/itunews/issues/2010/06/35.aspx.

Jacobs, J. (2018). In Twitter purge, top accounts lose millions of followers. *New York Times*. July 12, 2018. Available at https://www.nytimes.com/2018/07/12/technology/twitter-followers-nyt.html.

James, W. (1890). *Principles of psychology*. New York, Holt.

Jha, S. K., Pinsonneault, A., & Dubé, L. (2016). The evolution of an ICT platform-enabled ecosystem for poverty alleviation: The case of eKutir. *MIS Quarterly*, *40*(2), 431-445.

Kelly, S. (2005). New Frontiers in the Theorization of ICT-Mediated Interaction: Exploring the Implications of a Situated Learning Epistemology. *ICIS 2005 Proceedings*, 41.

Kizilcec, R. F., Saltarelli, A. J., Reich, J., & Cohen, G. L. (2017). Closing global achievement gaps in MOOCs. *Science*, *355*(6322), 251-252.

Kreiner, G. E., Hollensbe, E., Sheep, M. L., Smith, B. R., & Kataria, N. (2015). Elasticity and the dialectic tensions of organizational identity: How can we hold together while we are pulling apart?. *Academy of Management Journal, 58*(4), 981-1011.

Kreiner, G. E., & Sheep, M. L. 2009. Growing pains and gains: Framing identity dynamics as opportunities for identity growth. In L. M. Roberts & J. E. Dutton (Eds.), *Exploring*

positive identities and organizations: Building a theoretical and research foundation, 23–46. New York: Psychological Press

Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping*. New York, NY: Springer Publishing Company, Inc.

Lee, D. J., Ahn, J. H., & Bang, Y. (2011). Managing consumer privacy concerns in personalization: a strategic analysis of privacy protection. *MIS Quarterly*, 423-444.

Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management*, *33*(2), 161-176.

Liebkind, K. 1983. Dimensions of identity in multiple group allegiance. In A. Jacobson-Widing (Ed.), *Identity: Personal and socio-cultural*, 187–203. Uppsala: Humanities Press.

Maass, A., Cadinu, M., Guarnieri, G., & Grasselli, A. (2003). Sexual harassment under social identity threat: The computer harassment paradigm. *Journal of Personality and Social Psychology*, *85*(5), 853.

Majchrzak, A., Markus, M. L., & Wareham, J. (2016). Designing for digital transformation: Lessons for information systems research from the study of ICT and societal challenges. *MIS Quarterly*, *40*(2), 267-277.

Major, B., & O'Brien, L. T. 2005. The social psychology of stigma. *Annual Review of Psychology*, *56*, 393–421.

Matamoros-Fernandez, A. (2017). Platformed racism: the mediation and circulation of an Australian race-based controversy on Twitter, Facebook and YouTube. *Information, Communication & Society*, *20*(6), 930-946.

May, A. 2018. CVS fires two employees involved in police calls over black woman's 'fraudulent' coupon. *USA Today*, July 16, 2018. (Available at https://www.usatoday.com/story/news/nation-now/2018/07/16/black-oman-cvs-manager-called-police-coupon/787389002/).

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, *27*(1), 415-444.

McKenna, K. Y., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, *4*(1), 57-75.

Megarry, J. (2014, November). Online incivility or sexual harassment? Conceptualising women's experiences in the digital age. In *Women's Studies International Forum* (*47*, 46-55). Pergamon.

Miranda, S. M., Young, A., & Yetgin, E. (2016). Are social media emancipatory or hegemonic? Societal effects of mass media digitization. *MIS Quarterly*, *40*(2), 303-329.

Mohamed, A., & Gardner, W. L. (2004). An exploratory study of interorganizational defamation: An organizational impression management perspective. *Organizational Analysis*, *12*(2), 129-145.

Myers, M. D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization, 17*(1), 2-26.

Nach, H., & Lejeune, A. (2010). Coping with information technology challenges to identity: A theoretical framework. *Computers in Human Behavior*, *26*(4), 618-629.

Nedelcu, M., & Wyss, M. (2016). 'Doing family' through ICT□mediated ordinary co□presence: transnational communication practices of Romanian migrants in Switzerland. *Global Networks*, *16*(2), 202-218.

Negron, W. (2017). 10 tech issues that will impact social justice in 2017. *Ford Foundation*, https://www.fordfoundation.org/ideas/equals-change-blog/posts/10-tech-issues-that-will-impact-social-justice-in-2017/, accessed July 4, 2017.

Ng'ambi, D., & Johnston, K. (2006). An ICT-mediated constructivist approach for increasing academic support and teaching critical thinking skills. *Journal of Educational Technology & Society*, *9*(3).

Nosko, A., Wood, E., & Molema, S. (2010). All about me: Disclosure in online social networking profiles: The case of FACEBOOK. *Computers in human behavior*, *26*(3), 406-418.

Oeldorf-Hirsch, A., Birnholtz, J., & Hancock, J. T. (2017). Your post is embarrassing me: Face threats, identity, and the audience on Facebook. *Computers in Human Behavior*, *73*, 92-99.

Oreglia, E., & Srinivasan, J. (2016). ICT, Intermediaries, and the Transformation of Gendered Power Structures. *MIS Quarterly*, *40*(2), 501-510.

Orlando, J. (2013). ICT-mediated practice and constructivist practices: is this still the best plan for teachers' uses of ICT?. *Technology, Pedagogy and Education*, *22*(2), 231-246.

Orlikowski, W. J. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science*, *3*(3), 398-427.

Overby, E. (2008). Process virtualization theory and the impact of information technology. *Organization Science*, *19*(2), 277-291.

Patwardhan, P., & Yang, J. (2003). Internet dependency relations and online consumer behavior: a media system dependency theory perspective on why people shop, chat, and read news online. *Journal of Interactive Advertising*, *3*(2), 57-69.

Petriglieri, J. L. (2011). Under threat: Responses to and the consequences of threats to individuals' identities. *Academy of Management Review*, *36*(4), 641-662.

Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. 2006. Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal***,** *49*, 235–262.

Preece, J. (2001). Sociability and usability in online communities: Determining and measuring success. *Behaviour & Information Technology, 20*(5), 347-356.

Sanders, T. C. (2008). M4M chat rooms: Individual socialization and sexual autonomy. *Culture, Health & Sexuality*, *10*(3), 263-276.

Sanderson, J., Frederick, E., & Stocz, M. (2016). When athlete activism clashes with group values: Social identity threat management via social media. *Mass Communication and Society*, *19*(3), 301-322.

Schmalz, D. L., Colistra, C. M., & Evans, K. E. (2015). Social media sites as a means of coping with a threatened social identity. *Leisure Sciences*, *37*(1), 20-38.

Schwartz, S. J., Luyckx, K., & Vignoles, V. L. (Eds.). (2011). *Handbook of identity theory and research*. Springer Science & Business Media.

Sengupta, A., & Chaudhuri, A. (2011). Are social networking sites a source of online harassment for teens? Evidence from survey data. *Children and Youth Services Review*, *33*(2), 284-290.

Shaban, H. & Timberg, C. (2018). Twitter's stock plunges after reporting drop in user numbers. *The Washington Post*. July 27, 2018. Available at https://www.washingtonpost.com/technology/2018/07/27/twitters-monthly-users-fell-by-million-second-quarter-following-purge-fake-suspicious-accounts/?noredirect=on&utm_term=.d45d9ab90ff3

Sharma, V. & Vengattil, M. (2018). Zuckerberg loses more than $15 billion in record Facebook fall. *Reuters*. July 26, 2018. (Available at https://www.reuters.com/article/us-facebook-results-stock/zuckerberg-loses-16-billion-in-record-facebook-fall-idUSKBN1KG1TN).

Sia, C. L., Tan, B. C., & Wei, K. K. (2002). Group polarization and computer-mediated communication: Effects of communication cues, social presence, and anonymity. *Information Systems Research*, *13*(1), 70-90.

Siegel, J., Dubrovsky, V., Kiesler, S., & McGuire, T. W. (1986). Group processes in computer-mediated communication. *Organizational Behavior and Human Decision Processes*, *37*(2), 157-187.

Starbucks. 2018. Starbucks Shares Further Details on Multi-Phase Anti-Bias Training Efforts. *Starbucks Newsroom*. (Available at https://news.starbucks.com/views/starbucks-shares-further-details-on-anti-bias-training-efforts).

Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, *63*(3), 224-237.

Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behavior, 7*(3), 321-326.

Tajfel, H. (1978) (Ed.) Differentiation between Social Groups London: Academic Press.

Tajfel, H., & Turner, J. C. (2004). The social identity theory of intergroup behavior, In *Political psychology: Key readings*, J. T. Jost & J. Sidanius (Eds.), New York: Psychology Press, 276-293.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. New York: Blackwell.

Vaast, E., & Levina, N. (2015). Speaking as one, but not speaking up: Dealing with new moral taint in an occupational online community. *Information and Organization*, *25*(2), 73-98.

Van Maanen, J. (1979). *Qualitative methodology.* Sage Publications, Inc.

Van Maanen, J. (1988). *Tales from the Field: On Writing Ethnography*. Chicago, IL: The University of Chicago Press.

Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: structural racism, intersectionality theory, and immigrant health. *Social Science & Medicine*, *75*(12), 2099-2106.

Wang, H., & Hong, Y. (1995). Flaming: More Than a Necessary Evil for Academic Mailing Lists. http://files.eric.ed.gov/fulltext/ED385261.pdf.

Warschauer, M., Said, G. R. E., & Zohry, A. G. (2002). Language choice online: Globalization and identity in Egypt. *Journal of Computer-Mediated Communication*, *7*(4), JCMC744

Whitley, E. A., Gal, U., & Kjaergaard, A. (2014). Who do you think you are? A review of the complex interplay between information systems, identification and identity. *European Journal of Information Systems*, *23*(1), 17-35.

Wootson, C. R. 2018 Police say woman screamed racial slurs and smacked a black teen at a pool. She lost her job. *The Washington Post,* July 2, 2018. (Available at

https://www.washingtonpost.com/news/post-nation/wp/2018/07/02/police-say-woman-screamed-racial-slurs-and-smacked-a-black-teen-at-a-pool-she-lost-her-job/).

Wu, L. (2013). Social network effects on productivity and job security: Evidence from the adoption of a social networking tool. *Information Systems Research*, *24*(1), 30-51.

Ybarra, M. L., & Mitchell, K. J. (2008). How risky are social networking sites? A comparison of places online where youth sexual solicitation and harassment occurs. *Pediatrics, 121*(2), e350-e357.

Ybarra, M. L., Mitchell, K. J., Finkelhor, D., & Wolak, J. (2007). Internet prevention messages: Targeting the right online behaviors. *Archives of Pediatrics & Adolescent Medicine*, *161*(2), 138-145.

Yeshua-Katz, D. (2016). Online boundary work in stigmatized groups: The case of support groups for Israeli childless women. *International Journal of Communication*, *10*, 20.

Zeng, X., & Wei, L. (2013). Social ties and user content generation: Evidence from Flickr. *Information Systems Research*, *24*(1), 71-87.

Zhang, J., Carpenter, D., & Ko, M. (2013). Online astroturfing: A theoretical perspective. In Proceedings of the Americas Conference on Information Systems, Chicago Illinois, August 15-17, 2013. ACM

Zuboff, S. (1988). *In the age of the smart machine: The future of work and power* (Vol. 186). New York: Basic books.

Essay 1: Appendices

Table 2A: Definitions of identity threat (based on Petriglieri, 2011, p.644)

Source	Definition
Breakwell (1983: 13)	"Any thought, feeling, action, or experience that challenges the individual's personal or social identity is a threat."
Liebkind (1983: 191)	"The closer a person comes to having to construe himself in a new and alien manner (compared with the present identity system), the more likely he is to feel threatened."
Breakwell (1986: 46)	"A threat to identity occurs when the process of identity, assimilation-accommodation, and evaluation are, for some reason, unable to comply with the principles of continuity, distinctiveness, and self-esteem, which habitually guide their operation."
Branscombe, Ellemers, Spears, & Doosje (1999: 36)	There are four classes of identity threat: "(1) being categorized against one's will, (2) group distinctiveness is prevented or undermined, (3) the group's value is undermined, (4) one's position within the group is undermined."
Elsbach (2003: 632)	"An instance in which a participant perceived that the nonterritorial workspace impeded his or her ability to affirm or display an aspect of identity."
Major & O'Brien (2005: 402)	"Stigma-induced identity threat results when an individual appraises the demands imposed by a stigma-relevant stressor as potentially harmful to his or her social identity and as exceeding his or her resources to cope with those demands."
Pratt, Rockmann, & Kaufmann (2006: 235)	"Work-identity integrity violations: an experienced mismatch between what physicians did and who they were."
Kreiner & Sheep (2009: 32)	"Individuals face identity threats when their sense of self is called into question."
Aronson & McGlone (2009: 154)	Social identity threat is defined as " a state of psychological discomfort that people experience when confronted by an unflattering group or individual reputation in situations where that reputation can be confirmed by one's behavior"
Petriglieri (2011: 644)	"Individual-level identity threats as experiences appraised as indicating potential harm to the value, meanings, or enactment of an identity."

Table 2B: ICT-mediated Identity Threats in Prior Literature

Author (Year)	Theory	Method	ICT-Medium (Threats)	Threatened Identity	Identity Threat Type
Ben-David & Matamoros-Fernandez (2016)	technological affordances corporate logic	network analysis and multimodal content analysis of text, images and links	online	immigrants foreign people	threat to value identity denial threat
Braithwaite (2016)	none	qualitative content analysis	online gaming	female	threat to value
Carney (2016)	critical theory race theory	qualitative textual analysis of Twitter posts	Twitter	Black (race)	threat to value
Chatzakou et al. (2017)	none	experiment	Twitter	not specific	threat to value
Christy & Fox (2014)	none	lab experiment	virtual	gender (female) identity	stereotype threat
Farkas et al. (2018)	discourse theory	discourse analysis of Facebook posts and user comments	Facebook	Muslim	stereotype threat
Fox & Tang (2017)	none	online survey	online forums, blogs, social media (Reddit & Twitter)	women, transgendered individuals	threat to value stereotype threat
Geiger (2016)	none	observation of public community discussions, interviews	blockbots in Twitter	not specific	threat to value
Han (2018)	none	in-depth face-to-face & semi-structured interviews; text analysis of online comments	online forum	gender	threat to value
Hardaker & McGlashan (2016)	none	Corpus linguistics and discourse analysis of Tweets	Twitter	gender	threat to value
Kizilcec, et al. (2017)	none	two field experiments	online – massive open online courses MOOC	social identity (less-developed country member identity)	threat to value stereotype threat
Maass, et al. (2003)	none	two lab experiments	virtual female interaction	gender/group identity	threat to value threat to status threat to distinctiveness
Megarry (2014)	public sphere theory	case study	(microblogging platform) Twitter	women	threat to value

Table 2B: ICT-mediated Identity Threats in Prior Literature (Cont.)

Author (Year)	Theory	Method	ICT-Medium (Threats)	Threatened Identity	Identity Threat Type
Nosko & Wood (2010)	none	content analysis thematic analysis content examination	online	personal/group	stigma/taint
Oeldorf-Hirsh et al. (2017)	theories related to embarrassment	experiment	online/social media (Facebook)	self-identity self-presentation	acceptance threat
Sanders 2008	queer theory	online observations online and face-to-face interviews	online chat rooms (M4M)	queer	stigma/taint
Sanderson et al. (2016)	none	constant comparison methodology	social media, media	racial identity	threat to value
Schmalz et al. (2015)	social identity theory	survey interviews	online media (news)	self-identity	threat to value stigma/taint
Warschauer et al (2002)	none	survey interviews	online (use of English online)	Egyptian Arabic identity	threat to distinctiveness
Yeshua-Katz (2016)	computer-mediated communication theory, boundary theory, stigma	interviews	online support groups	gender identity (childless woman identity)	threat to value stigma/taint

Table 2C: Interview Guide for Targets of Identity Threats

The Role of IS in Shaping Identity Threats, Responses, and Outcomes
Draft[4] Interview Guide

The main purpose of this interview is to learn, from your perspective, about the role of information systems (IS) in shaping identity threats and how people respond to these threats. The following questions are the types of questions that will be asked during the interview, and we're providing them ahead of time so that you may have some time to reflect on your responses.

1. When you think about your various identities, meaning who you are, what comes to mind? For this question, you'd want to start with "I am…" and fill in the blanks.

2. When thinking about people who are close to you, those who know you well, how do you believe they would define or describe you?

3. When strangers or acquaintances see you, how do you believe they would define or describe you?

4. In thinking about the identities you mentioned, do you believe any of these have been threatened in any way in your lifetime through the use of technology—meaning that your sense of who you are has been challenged, by others or by yourself? If yes, how so? Please feel free to share any personal anecdotes.

5. How do you consume news? What types of news stories do you prefer to consume?

6. What role does technology have in influencing the way you consume news? When thinking about technology, you should consider not only the Internet and mobile phones but also technologies such as social media and features such as personalization, which may present you with news stories based on your interests.

7. I'd like to share with you some online content regarding various identity issues and hear your thoughts, not only about the main content but also the comments that are publicly posted.

Sample online content:

- https://www.facebook.com/citynewstoronto/videos/10154218977061175/
- http://people.com/movies/women-only-screenings-wonder-woman-controversy/
- https://www.washingtonpost.com/news/morning-mix/wp/2017/05/18/tulsa-officer-acquitted-in-fatal-shooting-of-unarmed-black-man/?utm_term=.d50ed7cd40f1
- http://www.nola.com/crime/index.ssf/2016/07/charles_kinsey_shot_hands_up.html
- http://www.dailymail.co.uk/news/article-3683567/Conservative-host-Tomi-Lahren-fire-calling-Black-Lives-Matter-new-KKK-critics-say-comments-reckless.html

[4] This interview guide is a draft. It will be modified as needed based on pilot interviews.

- https://www.cnet.com/news/facebook-twitter-instagram-womens-march/

- https://www.usatoday.com/story/news/nation/2017/01/25/angela-peoples-womens-march-washington-viral-photo/97062400/
- https://www.washingtonpost.com/news/post-nation/wp/2017/03/04/go-back-to-your-own-country-sikh-man-shot-in-his-driveway-in-suspected-hate-crime/
- https://www.washingtonpost.com/news/the-fix/wp/2017/02/08/why-trumps-travel-ban-is-struggling-people-were-never-begging-for-it-in-the-first-place/
- https://linguisticpulse.com/2013/09/23/gizoogle-amusing-tribute-or-racist-caricature-nsfw/

    a. What is your reaction to the main message in the article/video?
    b. Do any of the messages in the article/video make you feel as though one of your identities is threatened? If yes, which ones? Why?
    c. When reading the comments, which comments provoke a reaction from you, and why?
    d. Do any of the comments make you feel as though one of your identities is threatened? If yes, which ones? Why?
    e. If you had a response, to which of these commentators would you write to and what would you say?

8. How do you think technology plays a role in communicating these messages and how people respond to them? Specifically, think about how our world is today and contrast it to how it was when, or would be if, various information technologies did not exist. Please give examples and/or stories.

9. Why do you think people engage in controversial tech-behaviors, such as cyberbullying, trolling, upskirting, and creating/using online hate groups?
    a. How would the absence of technology influence these same types of behaviors?

Please share any other comments or stories regarding the way technology influences perceptions of identity threats, how people respond to these threats and the ultimate outcomes of these response efforts.

Table 2D: Interview stories

No.	Story Title	Story source/date	Story synopsis	Story URL
1	Why this women's march photo is such a big deal	*USA Today* June 26, 2017 18:49	During the women's march of January 2017. One black woman holds up a placard that reads: "Don't forget: White women voted for Trump." The image goes viral.	https://www.usatoday.com/story/news/nation/2017/01/25/angela-peoples-womens-march-washington-viral-photo/97062400/
2	Trump's travel ban is the most controversial policy almost nobody was begging for	*The Washington Post* February 8, 2017	A Quinnipiac poll shows that reviews of President Trump's controversial travel ban are unfavorable. Reasons people give as to why they oppose it suggest that it will have a rocky rollout	https://www.washingtonpost.com/news/the-fix/wp/2017/02/08/why-trumps-travel-ban-is-struggling-people-were-never-begging-for-it-in-the-first-place/
3	Sikh community asks for hate-crime probe after man is told "go back to your own country and shot"	*The Washington Post* March 5, 2017	While working on his car in his driveway, a Sikh man in Seattle is told "go back to your own country" before he is shot by a white man. Although is injuries are not considered life-threatening, a coalition of Sikhs in the United States call on state and local officials to treat the incident as a hate crime.	https://www.washingtonpost.com/news/post-nation/wp/2017/03/04/go-back-to-your-own-country-sikh-man-shot-in-his-driveway-in-suspected-hate-crime/
4	Sold Out Women-Only Screenings of *Wonder Woman* Spark Controversy	*People* May 29, 2017 14:07	A Texas-based theatre chain posts a notice announcing that it was going to screen the *Wonder Woman* movie to people who identified as women only. Everyone working at the screening, including venue staff, the projectionist and the culinary team were female. This causes an uproar on social media where people call it sexist and claim that it is illegal.	http://people.com/movies/women-only-screenings-wonder-woman-controversy/
5	Conservative host Tomi Lahren under fire for calling BlackLivesmatter "the new KKK: as critics say her comments are "reckless"	*Daily Mail* July 10, 2016 16:18	Tomi Lahren compares BlackLivesMatter to the Ku Klux Klan in a tweet that goes viral. She becomes the target of online backlash and is invited to a debate on CNN where she defends her views.	http://www.dailymail.co.uk/news/article-3683567/Conservative-host-Tomi-Lahren-fire-calling-Black-Lives-Matter-new-KKK-critics-say-comments-reckless.html

Table 2D: Interview stories (Cont.)

No.	Story Title	Story source/date	Story synopsis	Story URL
6	Tulsa officer acquitted in fatal shooting of unarmed black man	*The Washington Post* May 18, 2017	An Oklahoma jury acquits a white police officer in the fatal shooting of an unarmed black man in Tulsa. Dozens of protestors outside the courthouse chant "No justice, No peace. No racist police"	https://www.washingtonpost.com/news/morning-mix/wp/2017/05/18/tulsa-officer-acquitted-in-fatal-shooting-of-unarmed-black-man/?utm_term=.d50ed7cd40f1
7	Gizoogle: Amusing tribute or racist caricature? – NSFW	*Linguistic Pulse* September 23, 2013	In this article, the author examines Gizoogle, a website which parodies the search format of Google by modifying the language of Google and its search results using language patterns reminiscent of rapper Snoop Dogg.	https://linguisticpulse.com/2013/09/23/gizoogle-amusing-tribute-or-racist-caricature-nsfw/
8	Video: Exposing gender bias in the workplace	City News Toronto (Facebook site) March 11, 2017 15:50	In this video news story, the interviewer, against the backdrop of the Women's march, interviews a man and a women who switched places at work (i.e., pretended to be each other) and then described their experience with gender bias. The man said that he finally understood what his coworker faced everyday as clients second-guessed him and questioned his input, while she said that it was her most productive day ever.	https://www.facebook.com/citynewstoronto/videos/10154218977061175/

Table 2E: Interview participants

No.	Demographics Gender	Age	Mode	Length in minutes
1.	M	25-34	Face-to-Face	32:00
2.	M	35-49	Face-to-Face	41:00
3.	F	50-70	Face-to-Face	49:00
4.	M	25-34	Face-to-Face	40:00
5.	M	25-34	Face-to-Face	30:00
6.	F	50-70	Face-to-Face	34:00
7.	M	50-70	Face-to-Face	31:00
8.	M	18-24	Face-to-Face	40:00
9.	F	25-34	Face-to-Face	40:00
10.	M	35-49	Face-to-Face	44:00
11.	M	35-49	Face-to-Face	44:00
12.	F	25-34	Face-to-Face	25:00
13.	F	Over 70	Face-to-Face	54:00
14.	F	35-49	Face-to-Face	40:00
15.	F	35-49	Face-to-Face	36:00
16.	M	35-49	Face-to-Face	56:00
17.	F	25-34	Face-to-Face	44:00

Table 2F: Interview participants

Participants	Students	Adult Professionals	Adults (without formal employment)	Totals
Women	3	4	2	**9**
Men	2	6	0	**8**
Totals	**5**	**10**	**2**	**17**

Table 2G: News sources by participants

News source	No of Participants	ICT-mediated
online news websites/ online newspapers	2	yes
podcasts	1	yes
mobile phone news apps	7	yes
social media (Facebook, Reddit, Twitter)	3	yes
other online sources e.g. Wikipedia, blogs, Google	3	yes
email	1	yes
radio	2	yes
TV	6	yes
Hardcopy newspaper	2	no
Books	2	no

Table 2H: Data structure

First Order Concepts	Second Order Categories	Aggregate Dimensions
- Intersectional identity is not the same as the social identity and should receive considerations for its unique challenges - Men and women are different and these distinct differences should be acknowledged and respected	Threat to distinctiveness	Types of Identity Threat
- Non-white identities do not matter - Media threaten Christian values - Excluding men challenges the feminist identity	Threat to value	
- Women already have equal rights, trying to reduce men's status - Men get more respect than women, even if women are more capable	Threat to status	
- Splitting identities within a social identity group excludes members - Intragroup divisions are harmful to the social identity group	Acceptance threat	
- I am judged by how I look (skin color, hijab, etc.) - I am ashamed to be categorized with white people who are deemed racist - Colleagues think that, because I am a woman, I'm not capable of certain skills	Stereotype/ Categorization threat	
- There is a smear campaign against Muslims and people want to ban them from the U.S. - Saying BLM is like the KKK is intentionally spreading false information and creating a negative image of BLM	Image spoiling	
- Because I'm only half American, Americans often do not recognize that I'm American too.	Identity denial threat	
- There is stigma to being white in today's society - Blacks are perceived as inferior to whites - Muslims are perceived as a threat, as dangerous, because of the taint of extremist groups	Identity taint/Stigma	
- People can hide behind their phones and feel safe because they are not face-to-face with the people they harass - The Internet allows individuals who are countries apart to join their own little tribal communities and reinforce their similar beliefs	Reach	ICT Characteristics

Table 2H: Data structure (Cont.)

First Order Concepts	Second Order Categories	Aggregate Dimensions
- Enables people to say things they would never say face-to-face - Makes me feel helpless that I don't know the anonymous users who threaten me	Anonymity	
- Online news organizations feed viewers more of what the viewers want to hear - Internet filters news content to exclude unwanted viewpoints - Putting people in their own bubbles is polarizing the country	Personalization	
- See the same story over and over again - The more repeated exposure to the same tragic stories, the more desensitized I am	Reprocessability	
- Large amounts of information are constantly bombarding users - Difficult to process excessive amounts of content with depth and understanding	Volume	
- Messages spread fast - Information is quick to acquire/access	Velocity	
- We can't trust information from the news media anymore; it's "fake news" - I can't tell whether information I read online is true or false	Veracity	
- Can pack a greater punch - People are talking to each other with depth	Micro-messaging	

Table 2I: Representative Quotes Supporting the Data Structure

Second Order Categories	Representative Quotes
Types of Identity Threat	
Threat to Distinctiveness	[threat to female and black identities] *"In two ways: one, because I'm a woman and, two, because I am a black female. Sexism for white women is different for sexism for Hispanic women or black women or Native American women or Asian women. It differs based on race." –Participant 3* [threat to gender identity] *"To me, a man is a man, and a woman is a woman. We have to understand the differences. There are several differences." –Participant 16*
Threat to Value	[threat to minority (non-white) identity] *"This article about telling this man to go back to his country and then he's shot is something that's not uncommon in the African American culture. There are many incidents where African Americans are shot and killed and there are no probes. There's nothing reported. In this country, this is white America. There are white people at the table. They make the decisions. If they decide that they don't want to investigate this crime any further, then they don't investigate this crime any further. The fact that the people tell you to go back home, I mean, I've heard 'Back to Africa' campaigns a lot. We tell people to go back to their own country and then we punish them by killing them. Then nothing is done. You kind of wonder how precious is the life of non-whites." –Participant 3* [threat to Christian and American identities] *"I am a Christian, so to ban people because of where they're from or their religion, to me, that is a threat. This kind of onslaught of media on this particular subject, yeah, it's a big threat to my identity as an American, as a Christian, and values that I hold." –Participant 13* [threat to female identity] *"As a female, I feel that to isolate oneself as a gender that the other gender is not welcome to, no guys allowed, to me that threatens who I am as a woman." –Participant 13* [threat to minority identity] *"Because this has happened to a Sikh, this could happen to me as well, and I maybe could not even exist on this earth then. You know what I mean? If I'm killed, I won't exist. I won't exist anymore." –Participant 17*

Table 2I: Representative Quotes Supporting the Data Structure (Cont.)

Second Order Categories	Representative Quotes
Types of Identity Threat	
Threat to Status	[threat to male identity] *"They [women] already have equal rights and all that. Instead of doing that, they should be worried about other countries where there's so many young women being sold as sex slaves and all that. They're not as concerned about that as they are different things. The whole workforce thing, it's almost 100% of garbage workers, coal miners…they're all men, and they [women] are not screaming equality for that, but when it comes to air conditioned office jobs, they are. It's, you can't have one and not the other type scenario." –Participant 2* [threat to female identity] *"Of course, my identity is under threat. I'm a woman, and to think that I would go into a workplace, maybe even be more qualified than a man, and then he gets paid more than me or even gets more respect than I do, is something that you have to think about, you know?" –Participant 13*
Acceptance Threat	[threat to female identity] *"Whenever you say, 'White women voted for Trump,' you just basically excluded every other woman and that's just not good for womanhood. And the way they're saying it, it's creating a division. So the sign itself and the way it's expressed is creating a division among women which is not serving the cause of women." –Participant 12* [threat to female identity] *"Because I am a white woman, they are directly talking to me, although I may or may not have done the action that the poster has said that I have done." –Participant 14*
Stereotype/ Categorization Threat	[threat to Muslim identity] *"Most of the time, I wear a hijab, so if you see me like that, wearing hijab, so they can attack me. So I think, of course, it's a threat." –Participant 12* [threat to Muslim identity] *"Because Sikh's have beards and they wear turbans, a lot of times they look like Muslims even though they are not. In essence, he was not attacked as a Sikh; he was attacked as a Muslim. So, yes, I am very much threatened as a Muslim because this event shows a lack of tolerance for Muslims." –Participant 16* [threat to minority identity] *"If people categorize [black people] in terms of the color of their skin…my life could be vulnerable, or maybe I would become inferior." –Participant 17*

Table 2I: Representative Quotes Supporting the Data Structure (Cont.)

Second Order Categories	Representative Quotes
Types of Identity Threat	
Image Spoiling	[threat to Muslim identity] *"When you create a ban and you basically outcast a bunch of people specifically from majority Muslim countries, you're basically telling your people that, 'hey, it's okay to ban these people; therefore, Muslims are bad.' So as a Muslim, yeah, I am threatened." Participant 16*
Identity Denial Threat	*"That would challenge me because I am biracial and half-Mexican, that is. They [Americans] love to say that to Mexicans, go back to their country. That would challenge me because I am half-Mexican, so yes, that would challenge me." – Participant 5*
Identity Taint/ Stigma	[threat to male identity] *"The whole workforce thing, it's almost 100% of garbage workers, coal miners…they're all men, and they [women] are not screaming equality for that, but when it comes to air conditioned office jobs, they are." –Participant 2* [threat to foreigner identity] *"The 'Go back to your country.' That would challenge me because I am half-Mexicans. They love to say that to Mexicans, 'Go back to your country.'" –Participant 5*
ICT Characteristics	
Reach	*"I think it's easier to hide yourself behind your phone and send a text message to somebody who is maybe 2000 miles away than going face to face and saying such kind of things." –Participant 8* *"If you're in front of somebody and you're saying a controversial thing to that person or saying something that is more hateful, you have to face them in the eyes and be able to say that, whereas if you're using social media or some kind of chat room or something like that, you can hide behind not being able to look directly at that person and say that statement." –Participant 14* *"Facebook and Twitter… I feel like a lot of people use it as a platform to say things that they probably wouldn't say otherwise, because they have that protection of being behind a wall if you will, to say what they think." –Participant 14*

Table 2I: Representative Quotes Supporting the Data Structure (Cont.)

Second Order Categories	Representative Quotes
Types of Identity Threat	
Anonymity	*"They're completely anonymous, feeling like there's no possible social repercussion for what you do or say." –Participant 1* *"I think the anonymity of the Internet amplifies how it feels…You feel helpless because all you have are their words staring back at you, and there's nothing you can do. There's nobody to grab. There's nothing to shout at. It's just the empty void." –Participant 4* *"Anonymity—it makes people more bold." –Participant 15* *"Technology gives you the liberty to be anonymous and…say anything…I think it gives you the option to open up your heart without worrying about people knowing who you are and who's written this comment." –Participant 17*
Personalization	*"The personalization of news actually contributes to reinforcing the bubble that people build around themselves…the tendency of news organizations to feed their viewers more of what they want has contributed to the growing divide in our country and probably throughout the world, and the growing polarization that's happening." –Participant 10*
Reprocessability	*"When we see the same story over and over and over again… it's almost like I am becoming desensitized to it." –Participant 14*
Volume	*"The overwhelming amount of information that's available tends to lead people to silo themselves into just a few places because they don't want to feel that sense of overload so they find their niche and they stay there. The amount of information I think also causes people to withdraw into particular areas." –Participant 10* *"Because we are bombarded and inundated with news as much as we are"–Participant 14* *"The volume of our news, bad news or good news, everything is desensitizing us, so the volume itself, even though it gives us a lot of information, it's desensitizing our thoughts." –Participant 16*

Table 2I: Representative Quotes Supporting the Data Structure (Cont.)

Second Order Categories	Representative Quotes
Types of Identity Threat	
Velocity	*"I definitely think messages spread faster. I think people get angrier." – Participant 1* *"Just the rhetoric is just instantaneous and it's definitely meant to provoke." –Participant 4* *"With technology, everything is very fast and spreads quickly." – Participant 12* *"In terms of the media, what used to take a week maybe to get out there, gets out there more rapid or very fast, in seconds, you know, so you can reach your audience, the audience, your target audience much faster than you used to." –Participant 15* *"The speed of technology is so much." –Participant 16*
Veracity	*"Just 'cause it's posted on Facebook doesn't mean it's real… things can be written to where they sound pretty credible and they're not at all." – Participant 4* *"Truth and information can be batted back and forth like a ping pong ball on these responses. It's just, 'I'm right,' and when you're right, you don't need to think. You just say, 'I'm right.'" –Participant 13* *"I don't pay attention as much to the news stories on my social media because of the revelation that we've been receiving fake news so it's hard to distinguish between what is fact and what is not." –Participant 14*

Table 2I: Representative Quotes Supporting the Data Structure (Cont.)

Second Order Categories	Representative Quotes
Types of Identity Threat	
Micro-messaging	*"Comment sections don't reinforce a conversation back and forth. They reinforce yelling and short things. I feel like Twitter, by limiting the number of characters, people aren't talking back and forth." –Participant 1* *"We're trying to use a tool in a way that's too blunt and not capable of carrying the responsibility and care and compassion and kindness that needs to be inherent in a conversation in which you're trying to understand another person and allow them their opinions." –Participant 13* *"It shortens the message itself, and therefore, it can pack a bigger punch." –Participant 13*

Table 2J. Summary of Perceived Identity Threats per Participant

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
1	White Male 25-30 Married Gamer Computer guy Internet Film enthusiast Intellectual	Easy-going Relaxed Likes to have fun Acerbic Goofy-looking Doesn't care what others think	No	Yes [comm.] ***Threat to value:*** *threat to intellectual identity*	No	No	Yes [article] ***Image spoiling:*** *threat to BLM identity*	No	No	No
2	White Male 36 Husband Stepfather American Outdoorsman Second Amendment supporter	Easy-going Friendly Thoughtful Good listener Approachable	Maybe [article] ***Threat to status:*** *threat to male identity*	No	Yes [article] ***Identity taint/ Stigma:*** *threat to American identity*	No	No	No	No	No
3	Black woman Female (older) Mother Wife Daughter Religious Grandmother Aunt Administrator Advisor Mentor Friend Worker bee	Adaptable Resourceful Dependable Advocate Trustworthy Good mother Strong mother Family-oriented Faithful Approachable Black woman	Yes [article] ***Threat to distinctive-ness:*** *threat to intersec-tional identity of black female*	Yes [comm.] ***Stereotype threat:*** *threat to black identity*	Yes [article] ***Threat to value:*** *threat to minority (non-white) identity*	No	Yes [article] ***Image spoiling:*** *threat to BLM identity*	Yes [article] ***Stereotype threat:*** *threat to black identity*	Yes [article] ***Identity taint/ Stigma:*** *threat to black identity*	Yes [article] ***Threat to distinctive-ness:*** *threat to intersec-tional identity of black female*

Table 2J. Summary of Perceived Identity Threats per Participant (Cont.)

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
4	White American Male Son Youngest Over 25 Citizen Homosexual Liberal Feminist Languagephile	Hard working Honest Procrastinator Speedy Young adult Working on his career	N/A	No	No	No	Yes [comm.] ***Stereotype threat:*** *threat to BLM identity*	No	No	No
5	Male Homosexual Black Hispanic Biracial Outgoing Kind Beautiful Energetic Liberal	Kind Outspoken/blunt Arrogant Sophisticated Woman (due to long hair and feminine qualities)	No	N/A	Yes [article] ***Identity taint/ Stigma:*** *threat to foreigner identity* ***Identity denial:*** *threat to American identity*	No	Yes [comm.] ***Image spoiling:*** *threat to black identity*	Yes [article] ***Stereotype threat:*** *threat to black identity*	No	No
6	Female American Highly educated World traveler Comedian Music enthusiast	World traveler Comedian Likes to laugh Good friend Loyal Conservative (but not really) Uppity	No	No	Yes [article] ***Threat to value:*** *threat to intellectual identity*	No	Yes [article] ***Threat to value:*** *threat to intellectual identity*	No	No	Yes [article] ***Stereotype threat:*** *threat to female identity*

Table 2J. Summary of Perceived Identity Threats per Participant (Cont.)

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
7	Private Middle-aged Single Father Grandfather Employed Make pretty good money "Old school"	Good Quiet Withdrawn	No	No	No	No	No	No	No	No
8	Man/Male Black Brother First born Caring person Student French-speaker Soccer player	French-speaker African or African-American Student Christian Caring person	No	N/A	N/A	N/A	N/A	Yes [article] ***Stereotype threat:*** *threat to black identity*	N/A	N/A
9	American Caucasian Female Nerd Geek Cat person Weird Student Tom boy Gamer	Student Nice Smart/ Intelligent Woman Nerd Overweight	N/A	No	Yes [article] ***Stereotype threat:*** *threat to American identity*	No	No	Yes [article] ***Identity taint/ Stigma:*** *threat to Caucasian identity*	No	Yes [article] ***Stereotype threat:*** *threat to female identity*

Table 2J. Summary of Perceived Identity Threats per Participant (Cont.)

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
10	White Male American Middle-aged Musician Critical thinker Scientist Father Upper middle class Atheist/Secular Feminist	Tall Smart Good teacher Good dad Middle-aged White guy	No	Yes [article] ***Threat to value:*** *threat to American identity*	Yes [article] ***Threat to value:*** *threat to secular identity*	Yes [article] ***Threat to value:*** *threat to feminist identity*	No	No	No	No
11	Caucasian Male Friendly Low-key Easy-going	Easy-going Friendly Approachable Guy with glasses Medium height Middle-aged	No	No	No	No	No	No	No	No
12	Mother Wife Housewife Muslim Minority	Friendly Helpful Good mother Positive	Yes [article] ***Acceptance threat:*** *threat to female identity*	Yes [article] ***Stereotype threat:*** *threat to Muslim identity*	Yes [article] ***Identity taint/ Stigma:*** *threat to minority identity*	No	Yes [article] ***Identity taint/ Stigma:*** *threat to Muslim identity*	Yes [article] ***Stereotype threat:*** *threat to Muslim identity*	N/A	N/A
13	White woman Senior citizen Christian Reserved Listener Somewhat apolitical	Intellectual Reader Liberal/ Democrat Caring Casual dresser Preoccupied	Yes [article] ***Stereotype threat:*** *threat to female identity*	Yes [article] ***Threat to value:*** *threat to Christian identity*	Yes [article] ***Threat to value:*** *threat to Christian identity*	Yes [article] ***Threat to value:*** *threat to female identity*	Yes [article] ***Threat to value:*** *threat to white female identity*	Yes [article] ***Stereotype threat:*** *threat to white identity*	No	No

Table 2J. Summary of Perceived Identity Threats per Participant (Cont.)

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
14	Caucasian American Single Caring Perfectionist Christian Organized	Too hard on self Worry too much Kind Caring Trustworthy Approachable	Yes [article] ***Acceptance threat:*** *threat to female identity*	No	No	No	No	No	No	Yes [article] ***Stereotype threat:*** *threat to female identity*
15	Black Dominican Foreigner/ Immigrant West Indian Woman PhD student Mother Old school	Strong Weak Motivating Girl-Next-door Vibrant Vivacious Down-to-earth Role model Short Black girl	Yes [article] ***Threat to value:*** *threat to female identity*	Yes [article] ***Stereotype threat:*** *threat to foreigner identity*	Yes [article] ***Stereotype threat:*** *threat to black identity*	No	Yes [article] ***Threat to value*** *threat to black identity*	Yes [article] ***Stereotype threat:*** *threat to black identity*	No	Yes [article] ***Threat to status:*** *threat to female identity*
16	Male Father Husband Head of family PhD student Muslim Accountant Book reader Liberal Intellectual Feminist	Honest Caring Short Fat Ugly Approachable	Yes [article] ***Threat to value:*** *threat to liberal identity*	Yes [article] ***Identity taint/ Stigma:*** *threat to Muslim identity*	Yes [article] ***Stereotype threat:*** *threat to Muslim identity*	Yes [article] ***Threat to value:*** *threat to feminist identity*	Yes [article] ***Threat to value:*** *threat to intellectual identity*	Yes [article] ***Identity taint/ Stigma:*** *threat to Muslim identity*	No	Yes [article] ***Threat to status:*** *threat to male identity*

Table 2J. Summary of Perceived Identity Threats per Participant (Cont.)

ID	Identity (self)	Identity (others)	Women's March	Travel Ban	Sikh Man	Wonder Woman	KKK-BLM	Tulsa Officer	Gizoogle	Sexism Email
17	Woman Indian Daughter Wife Sister Researcher Strong Independent Rational Conscientious Driven Minority Not a feminist International student	Justice-oriented Honest Positive Warm	No	Yes [article] ***Threat to value:*** *threat to international student identity*	Yes [article] ***Threat to value:*** *threat to minority identity*	No	Maybe [article] ***Stereotype threat:*** *threat to minority identity*	Maybe [article] ***Stereotype threat:*** *threat to minority identity*	No	Yes [article] ***Threat to value:*** *threat to female identity*

[article] = threat is experienced from reading the online news article or viewing the online news video
[comment] = threat is experienced from reading comments in the social media/comments section of the online article
N/A = the participant was not shown this story, due to time constraints or an unwillingness to view the content
Shaded identity threats indicate threats to a social identity; lack of shading indicates a threat to a personal identity

III. Essay 2: ICT-Mediated Identity Threat and Response Process (ITARP): A Mixed-Methods Study

Introduction

Following the announcement of the 2016 United States election results, Teresa Shook, a retired attorney and grandmother from Hawaii, created a Facebook event page calling for a march on Washington on January 21, 2017 (Agarwal, 2017). Other women created similar pages on Facebook and Twitter, mobilizing between 3.3 to 4.6 million individuals to march in Washington and other cities in the United States and around the world (Darrow, 2017). Many women indicated that they were motivated to join the march because they felt, as a group, their identity was threatened by earlier lewd comments by the president-elect, Donald Trump (Agarwal, 2017). The comments occurred offline in 2005 but were recorded and later widely shared online by media outlets in October 2016, prompting action from Teresa Shook and others.

Another movement that similarly started online is Black Lives Matter, formed in 2012 in response to what African-American people in the United States felt was systemic racism against them. It began with the use of the hashtag *#BlackLivesMatter* on Twitter after the live-streamed video of George Zimmerman's trial revealed he was acquitted in the shooting of Trayvon Martin, an African-American teenager[5]. The live-streamed verdict prompted online conversations about race by African-Americans, culminating in the tweeting of the hashtag. Through the movement, black people in the United States have organized to fight against the injustices they feel have threatened their identity (Garza, 2014; Rodriguez, Geronimus, Bound, & Dorling, 2015).

Beyond social movements, there are numerous, growing instances of individuals who experience or perpetuate identity threats via ICT media, and these threats spread to adversely

[5] http://blacklivesmatter.com/about/

affect the reputation of their employers. The employers often respond by publicly distancing themselves from the employees and their actions and terminating their employment. Also, organizations are increasingly implementing social media policies and training employees to protect their own identities and reputations from employees' personal use of social media.

The above examples illustrate how the use of Information Communication Technologies (ICTs) is relevant to the *process* of perceiving identity threats and responding to them. ICTs include various forms of *digital media*, such as social media, online news media, and mobile communication technologies (Jha, Pinsonneault & Dube, 2016; Majchrzak et al., 2016; Miranda, Young & Yetgin, 2016; Oreglia & Srinivasan, 2016). Much of the prior information systems research on information technology (IT) and the identity threat and response process (ITARP) has focused on how new IT implementations within organizations may cause identity threats (e.g., Alvarez, 2008; Nach, 2015; Nach & Lejeune, 2010; Walsham, 1998). Results from offline IT implementation studies concerning ITARP may not generalize well to the ICT-mediated context for several reasons. For example, in an offline organizational context, employees experience identity threats, such as deskilling (e.g., Agnew, Forrester, Hassard, & Proctor. 1997; Alvarez, 2008), which primarily affect their occupational identity. ICT-mediated identity threats affect a wide range of identities, as shown in Essay 1. Furthermore, employees' responses to these identity threats are generally tied to their work roles and the system itself, e.g., implementing work-arounds (Alvarez, 2008). By contrast, in ICT-mediated identity threat situations, potential sources of the threat are often the people and their actions through ICTs. Moreover, because ICTs involve social media, the boundary of the ITARP process can expand to include peripheral social actors on a global scale, with identity threats being triggered and

escalated quickly. Thus, this essay also contributes by studying the dynamics of ICT-mediated ITARP, which occurs in a broader context than ITARP within the bounds of an organization.

Most ITARP literature, including the broader literature outside of IS, views identity threats and responses from the perspective of the target while ignoring the source, despite the fact that identity threats and responses reflect an interactional dynamic between the target and source. This essay also contributes by examining ITARP that captures the interplay between targets and sources in the entire process. Thus, this essay extends prior ITARP conceptualizations to examine the entire process of ICT-mediated identity threats and responses. Moreover, it recognizes that ITARP process may occur in multiple different ways. Accordingly, my research question is the following: *What are the distinct patterns of ITARP interactions when mediated by ICTs?*

To address this question, I adopted an inductive, mixed-methods approach. More specifically, I examined publicly available online data on 50 viral stories involving ICT-mediated ITARP and conducted interviews with individuals involved in some of them. These individuals represent both targets and sources of the identity threats who fully participated in the ITARP cycle. Findings from this mixed-methods study represent a starting point to understand the process of ICT-mediated ITARP, which can pave pathways to improved online engagement.

Theoretical Background

Identity Threat and Response Process

An identity threat[6] is any thought, action or experience that challenges an individual's personal or social identity (Breakwell, 1983). When individuals perceive or experience an identity threat, they usually respond by adopting mechanisms, called coping responses, to

[6] As identity threats are covered in Essay 1, in this study, I elaborate on coping responses and the full ITARP cycle.

manage or lessen the identity threat (Petriglieri, 2011). Coping responses are the strategies and mechanisms employed to manage the threatening environment (Lazarus & Folkman, 1984). Individuals use various coping mechanisms to respond to stressful events, including avoiding, tolerating, accepting and mastering the threatening environment (Lazarus & Folkman, 1984).

Prior literature reveals three main categorizations of coping responses to identity threats. Two identity scholars, Breakwell (1986) and Petriglieri (2011), propose coping responses to identity threats in general within organizational contexts (i.e., and not specifically in an IS context). By contrast, Nach and Lejeune (2010) propose coping responses based on identity threats stemming from new IT implementations in organizations. Both Nach and Legeune (2010) and Petriglieri (2011) ground their ITARP models in coping theory (Lazarus & Folkman, 1984), whereas Breakwell (1986) develops her own identity process theory. In coping theory, individuals engage in cognitive appraisals and coping processes to respond to a stressful experience. Through primary appraisal, individuals assess whether there is a threat and, if they conclude there is indeed a threat, engage in a secondary appraisal to determine the most appropriate coping response (Lazarus & Folkman, 1984).

Situation-focused and emotion-focused coping responses

Although Nach and Lejeune (2010) present their ITARP model based on new IT implementations, they ground their model in the coping strategies proposed by Lazurus and Folkman (1984): situation-focused and emotion-focused. Situation or problem-focused strategies of coping with identity threats focus on changing or solving the problematic situation. In this strategy, the individual responds by acting on the situation or adjusting own self-concept (Nach & Lejeune, 2010). Consider the following example of a problem-focused strategy. Upon adopting a new enterprise system, a loan manager at a bank feels that her identity will be reduced

from loan manager to loan worker, and therefore views this experience as an identity threat. Through the secondary appraisal, she chooses the problem-focused response of making minimal use of the system in an attempt to preserve her identity (Nach & Lejeune, 2010). She could alternatively respond by learning to use the system and mastering it, thereby increasing her skill set and adjusting her self-concept (Nach & Lejeune, 2010).

Emotion-focused strategies of coping with identity threats aim to reduce the negative emotional impact of the problem and increase one's sense of well-being (Nach & Lejeune, 2010). In this strategy, the individual responds by either distancing oneself or taking part in cathartic practices in order to cope (Nach & Lejeune, 2010). If because of a new information system implementation, the bank employee finds it difficult to identify with her new role and decides to visit a therapist or counselor to talk through her situation, this would be an example of an emotion-focused strategy and specifically a cathartic one.

Identity-protecting and identity-restructuring coping responses

Petriglieri (2011) adapts coping theory from Lazurus and Folkman (1984) to propose a comprehensive model of the identity threat and response process and classifies coping responses into two categories: identity-protecting and identity-restructuring. Identity-protection coping mechanisms target the source of the threat so as to protect the threatened identity and include derogation of the source of the threat, concealment of the threatened identity, and positive-distinctiveness—the latter referring to presenting the threatened identity in a positive light (Petriglieri, 2011). In the example of the bank manager who feels demoted to a bank worker, she may choose to condemn (i.e., derogate) the IT department for implementing the enterprise system. However, if she decides to think, act and speak positively about her new role, this is an example of positive-distinctiveness. Lastly, she may try to conceal her threatened identity (being

perceived merely as a bank worker) by performing roles that would be overtly associated with upper management and dressing in more executive-styled clothing. For the most part, identity-protecting responses will not eliminate the threatened identity. Instead, identity-protection responses help individuals cope with the threatened identity and decrease the potential for future harm. The one exception is positive-distinctiveness, which has the potential to eliminate the identity threat if the target is successful in changing the views of others (Petriglieri, 2011).

Identity-restructuring coping responses target the threatened identity in order to make it less likely to inflict potential harm and include changing the importance of the threatened identity, changing its meaning, or abandoning the identity altogether (i.e., identity exit) (Petriglieri, 2011). Regarding the example of the bank manager who sees her job as merely a bank worker when using an enterprise system, if she decides that her new role definition is not important as long as she enjoys her work, then this would be an example of importance change. She may alternatively decide to change what it means to be a bank worker, choosing to believe that being a bank worker using a new, cutting edge enterprise system redefines her role as one that is innovative (i.e., meaning change). In the last example of an identity-restructuring strategy, she may decide that working at a bank should no longer be part of her identity and quits her job, choosing a career in an entirely new field; this would represent an identity exit. In identity exit, the individual physically disengages from any role or group associated with the identity. All identity-restructuring responses result in eliminating the identity threat (Petriglieri, 2011).

Intra-psychic, interpersonal, and group or intergroup coping responses

In developing identity process theory, Breakwell (1986) defines three broad categories of coping responses to identity threats: intra-psychic, interpersonal, and group or intergroup. Intra-psychic coping strategies are purely cognitive and include both deflection and acceptance

responses. Deflection responses are coping strategies such as denial and fantasy. Acceptance strategies include restructuring, compromise changes, and fundamental changes in one's identity (akin to importance change and meaning change in Petriglieri's (2011) model). Interpersonal coping responses are those that involve relationships with others in some way, such as isolationism (withdrawing or distancing from the source of the threat) and negativism (attacking the source of the threat—i.e., derogation). Finally, Breakwell (1986) also defines group and intergroup coping responses. These include strategies such as group social support and group collective action. Petriglieri (2011) includes social support in her ITARP model as well, but as a moderator rather than a response in and of itself.

ICT-mediated ITARP in prior literature

In my study, I conceptualize ICT-mediation as the notion of ICT-mediated communication, based on characteristics of ICTs[7] (such as ubiquity, and simultaneous and immediate interactions) used to shape communication patterns and allow routines for connecting people and maintaining a connected presence (Nedelecu & Wyss, 2016). This conceptualization describes how digital, social and communication media allow people to connect and communicate. ICT-mediated ITARP in my study therefore refers to how individuals have used ICTs to shape communication patterns in the identity threat-coping response cycle.

A review of literature on ICT-mediated ITARP reveals 28 empirical studies involving ICT-mediated responses to identity threats, with only eight capturing both ICT-mediated identity threats and responses (see Table 3A). Eight studies reflect ICT-mediated responses to identity threats that occurred offline. Also, 12 of the 28 studies do not incorporate any sort of theory.

--- Insert Table 3A here ---

[7] For example, video, audiotapes, telephones, the Internet

Common examples of the ICT medium in the studies are online discussion forums (e.g., da Cunha & Orlikowski, 2008; de Koster, 2010; Mahooney, 2006), Internet newsgroups (e.g., McKenna, & Barghm 1998), social media (e.g., Kim et al., 2018; Sanderson, et al., 2016; Schmalz, Colistra, & Evans, 2015) and virtual environments (Christy & Fox, 2017; Maass, et al., 2003). The virtual environments were contrived as simulated environments through lab experiments (Christy & Fox, 2017; Maass, et al., 2003). Further, across the studies, various identities were threatened, ranging from gender (Christy & Fox, 2014; Maass et al., 2003; Yeshua-Katz, 2016), race (Sanderson et al., 2016), national origin (Kizilcec et al., 2017; Warschauer et al., 2002), LGBTQ (de Koster, 2010; McKenna & Bargh, 2014) to occupational identity (da Cunha & Orlikowski, 2008; Vaast & Levina, 2015).

I mapped the ICT-mediated responses to the ITARP literature and found that social support is a commonly employed coping response in ICT-mediated environments (e.g., Mahoney, 2006; Milliard, et al., 2014; Sanderson, et al., 2016; Schmalz, Colistra, & Evans, 2015; Yeshua-Katz, 2016), which is not surprising given the social nature of the commonly used ICT media (e.g., social media, online forums). Typically, social support was accompanied by information sharing and information seeking as coping responses in these studies. This is because targets not only sought social support (characterized by encouragement and positive feedback) but also desired to learn more and share knowledge about their threatened identities in order to make better sense of how to manage the threats (e.g., da Cunha & Orlikowski, 2008; de Koster, 2010; Sanderson, et al., 2016; Schmalz, Colistra, & Evans, 2015). Another coping strategy found in two studies is the use of humor (da Cunha & Orlikowski, 2008; Oeldorf-Hirsh, et al., 2017) and concealment (McKenna & Bargh, 1998; Oeldorf-Hirsh, et al., 2017; Yeshua-Katz, 2016). However, concealment in an ICT-mediated context, versus an offline context,

presented in responses such as anonymizing those who are threatened (McKenna & Bargh, 1998), deleting threatening content (Oeldorf-Hirsh, et al., 2017), and manual filtering of threatening content (Yeshua-Katz, 2016). Additionally, the intra-psychic coping strategy of meaning change was found in a few studies, though it was predominantly introduced as an intervention in an experimental setting. For example, Kizilcec et al. (2017) introduced an online journaling exercise to elicit meaning change responses among study participants.

Three of the 28 studies examined the temporal process of ITARP (Hardaker & McGlashan, 2016; Megarry, 2014; Vaast & Levina, 2015), though in Vaast and Levina (2015) the identity threat was triggered offline while the responses were ICT-mediated. The case involved employees of a firm who used an online community to cope with the occupational identity threat of moral taint/stigma that stemmed from the 2008 financial crisis. Vaast and Levina (2015), through their case analysis, found that employees who used the online community went through three phases of coping, starting with rejecting the moral taint, then transitioning to distancing themselves from the taint, and finally resigning themselves to the stigma. Although this study is useful in demonstrating sequences of ICT-mediated responses to an identity threat, it is based on a single case and may not generalize to other ICT-mediated ITARP cases. Further, just as the rest of the studies shown in Table 3A, the study only focuses on the perspective of the target, without consideration of the dynamic interactions that take place between the target and source over time. Therefore, there is still a need to understand the patterns of ICT-mediated ITARP interactions between the targets and sources of identity threats, spanning multiple examples of ICT-mediated identity threat and response scenarios. This will help generalize findings to different types of ICT-mediated ITARP cycles and improve our

understanding of how individuals and ICT platforms can better manage and prevent negative outcomes that stem from ICT-mediated ITARP interactions.

Research Methodology

To address my research question, I conducted an exploratory mixed-methods study. A mixed-methods study combines qualitative and quantitative research techniques, methods, approaches, concepts or language in a single study (Johnson & Onwuegbuzie, 2004). I used mixed methods for the purposes of expanding understanding of the findings from one method to the next while also triangulating results across the different methods. While expansion provides further explanation that builds on previous methods, triangulation seeks convergence of results from multiple methods (Teddlie & Tashakkori, 2009; Venkatesh, Brown, & Bala 2013). The primary method I use is event sequence analysis of 50 online viral stories, supplemented by a qualitative analysis of interview data[8] from six individuals involved in six of the 50 viral stories.

Data Collection: Online Content for Event Sequence Analysis

I began to collect the dataset of viral stories for my dissertation in April 2017. I assembled the data set of viral stories involving online identity threats and responses. To assemble the data, I used online search engines and searched for the following keywords: "controversial", "trending", "viral", "online", "social media", or "Internet" and the year, e.g., "2007". [I used the term "trending" to refer to a time interval over which the rate of change of momentum is positive, that is the mass and velocity increase a given time period (Hu, Farnham, & Monroy- Hernández, 2013). Trending happens when users, platform owners and others in the social media universe manipulate interaction by massively retweeting or liking particular content, thereby pushing a topic or story to the fore or increasing online traffic to it (van Dijck &

[8] I am continuing to make attempts to reach additional informants, although the participants in these stories from interview phase of this study is still ongoing, as the target respondents constitute a difficult-to-reach population. Hence, in this study, I present preliminary findings from the analysis of interview data.

Poell, 2013). "Going viral" is a term used to describe how quickly a video clip or tweet get shared online (Wallsten 2010)]. I focused on viral stories because it was more likely that more people experienced or were exposed to the threat and in greater intensity compared to using non-viral stories. This is supported by prior research, which reveals that people are more likely to share content, causing it to go viral, if there is the potential that it will evoke emotions such as outrage (Crockett, 2017). The threat and response process are more visible and more acute when the story goes viral.

I also confined the stories to those with clear ICT-mediation, which I defined as communication based on characteristics of ICTs (e.g., ubiquity and simultaneous and intermediate interactions) used to shape communication patterns and allow routines for connecting people and maintaining a connected presence (Nedelecu & Wyss, 2016). I restricted the stories to those taking place in the United States and Canada because research shows that, compared to many nations, individuals in these countries are considered most supportive of free expression, including free speech, freedom of the press and the right to use the Internet without government censorship (Pew, 2015). Further, I wanted to control for regional differences. My search was limited to stories that occurred after 2007 given that this is around the time when social media began to be widely used by both individuals and businesses (Kaplan & Haenlein, 2010). To allow sufficient time for coding and data analysis, my search of online stories spanned to the end of the 2017 calendar year.

Often, the keyword searches returned lists of stories compiled by online news sources or online magazines with titles such as "*The Top 10 Things The Internet Couldn't Stop Talking About | TIME*"[9]. Although the stories that I selected for my study were not limited to such lists,

[9] http://time.com/5027497/top-10-viral-moments-2017/).

these lists were a useful source for identifying stories I could potentially add to my study. To decide whether a story qualified for inclusion, I evaluated whether there was clear evidence of an ICT-mediated identity threat targeting an individual or group, followed by a series of responses. Moreover, I selected stories such that my sample was as representative as possible of the different types of stories that were available. For example, there are many stories of restaurant wait staff posting customer receipts online, but I selected one of the most controversial stories of this type to include in my data collection and analysis.

Because I commenced data collection in April 2017, I collected not only historical data but also aimed to capture current stories through the end of the 2017 calendar year. Thus, at this point, I began monitoring news feeds (e.g., on Google) and social media (such as Facebook and Buzzfeed) on a daily basis for any emergent stories that would fit my inclusion criteria. Rather than use search terms, I stayed abreast of any unfolding or current events that held public interest. This allowed me to collect an additional 14 stories that began after May 2017 (e.g., the Professor Quinn misidentification story (began in August 2017), the #MeToo movement story (began in October 2017)). I was careful to only add stories if they met all inclusion criteria. Overall, the sources I used to gather the sequences of events for each story include online news stories, publicly accessible identity-related conversations in online communities (representing different social groups and/or identities), social media (including Facebook, Twitter, YouTube, Buzzfeed and 4chan), and blogs. Furthermore, I relied on multiple sources, including mainstream media (e.g., CNN. FOX News, BBC), as well as source data from the actors involved (e.g. tweets, uploaded videos) for the same event/action to ensure reliability among sources (see Table 3B). Using multiple sources provides some level of assurance that events/actions are captured

with greater accuracy, particularly when the sources are reputable. In addition, I captured only information that was relevant to the ITARP versus information that was peripheral to ITARP.

--- Insert Table 3B here ---

Because the inclusion criteria I used could yield stories that may not have involved any identity threat or coping response, I used the following exclusion criteria. First, I excluded stories that did not clearly show an identity threat or coping response. For example, there was a story of a father whose children interrupted his interview with the BBC[10] that went viral in March 2017 and surfaced in many of my searches, but I could not include it because there was no identity threat or coping response present. Second, I excluded stories where the identity being targeted could not be clearly defined. For example, the May 2016 story of how Internet users became outraged when Harambe*,* the Cincinnati gorilla, was shot dead by zoo officials after a three-year old child accidently climbed his enclosure[11] also appeared in many of my searches. However, I excluded it because there was no clear identity being targeted. Third, I excluded stories that had no clear start and/or end points. For example, President Trump has used his Twitter handle to derogate the media, but I was unable to include this story because, even though it meets the criteria of involving identity threats and responses, the story does not seem to fade and instead continues to trend; thus, it is difficult to clearly define an endpoint. Finally, I also excluded stories where there was no clear evidence of ICT-mediated activity related to ITARP.

In total, I identified 50 unique stories (see Table 3C for a detailed breakdown) and then examined several online sources to collect data on the chronology of events related to each story. I did not specify the length of time (from start to end) for any story, but the total timeframe varied across the stories, with some stories occurring within a very short period, while others

[10] http://www.bbc.com/news/av/world-39232538/bbc-interview-with-robert-kelly-interrupted-by-children-live-on-air
[11] https://www.vox.com/2016/5/31/11813640/harambe-gorilla-cincinnati-zoo-killed

spanned years (see Table 3C). For each story I included as much detail as was available. For example, for each online story, I also searched social media to code for responses from people and reactions to those responses. I would also seek other online news sites for additional details on the story. Thus, in this way, I controlled for granularity expressed in each story.

Although it was not a selection criterion, all stories I included in my dataset had gone viral on a national scale rather than remain viral locally. Prior research reveals that local news editors and newsroom managers, the decision-makers on which stories to promote, tend to be guided by what is popular online (Bailey, 2015). This type of focus increased the viral nature of the stories online and the subsequent online responses and backlash. In addition, although I did not set network effects as part of an inclusion criteria, because the stories were shared among social networks of individuals (including social media), the stories are found to have social network effects present. For example, contagion—the effect where individuals became more alike because of their social interactions (Zeng & Wei, 2013)—was evident especially with filter bubbles and echo chambers, where people who shared similar viewpoints tweeted similar things or wrote similar comments online in response to viral stories. Other social network effects included homophily (where there was a higher rate of contact between similar than among dissimilar people) and information diversity (which refers to heterogeneity of the information content in electronic communications; McPherson, Smith-Lovin, & Cook, 2001; Wu, 2013).

--- Insert Table 3C here ---

Data Collection: Interviews

For the interview phase of my study, I contacted relevant stakeholders from the 50 stories who represented either the source or the target of the ICT-mediated identity threats. In total, I developed a list of over 100 potential respondents to contact, most who were prominent personalities, celebrities, politicians or people who had gained fame or prominence as a result of

their stories going viral[12]. I started my search for the interview participants by trawling the Internet for contact information. For some of them, their email and social media contact information (e.g., a Facebook page or a Twitter handle) was publicly available online and it was possible to find them through a basic search. For these individuals, where it was possible, I sent them an email or a direct message on Facebook, Twitter or LinkedIn. Some individuals had websites that included a contact page, which I was able to use to send interview requests. A couple of them had their phone numbers listed online, and I was able to call them directly or through their place of work. I also located a few through third parties, for example, an administrative assistant in their place of former or current employment. Finally, as a result of online backlash, a few others have deleted their online accounts and despite several attempts, direct and indirect, it was not possible to locate them or their contact information.

The target respondents are a difficult-to-reach population, as many of them are celebrities, people who have come to fame due to online backlash, or people who have been so hurt that they are unwilling to talk. Thus far, I have been able to interview six individuals involved in the stories. The interviews were structured as open-ended, semi-structured interviews. I was able to secure at least one interview per cluster (see Table 3D), and as I discuss the results of the cluster analysis, I incorporate relevant insights from the interviews. Four interviews were video- and audio-recorded, and two phone interviews were audio-recorded. The transcripts of the audio files were uploaded into *MAXQDA* software for analysis; although, as previously noted, data collection and analysis of interviews are still ongoing. Thus, only preliminary analysis of the interview data is presented in this study.

--- Insert Table 3D here ---

[12] "Going viral" is a term used to describe how quickly a video clip or tweet get shared online (Wallsten 2010).

Data Analysis: Event Sequence and Cluster Analysis of Online Content

I analyzed the 50 stories using event sequence analysis followed by a cluster analysis. Event sequence analysis enables researchers to describe processes that occur over time by viewing them as sequences of events (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). In event sequence analysis, researchers may use qualitative data descriptions to identify events, and then use the chronological order of events to generate sequences, and then use a technique such as optimal matching to compute distance between each pair of process sequences Event sequence analysis is often followed by cluster analysis to generate an empirical taxonomy of processes (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993; Sabherwal & Robey, 1995).

Construction of Event Sequences

To begin the event sequence analysis process, I converted each story into a sequence of events. I classified each story based on the social actions (i.e., events), the social actors involved for each action (target, source, mainstream media, and social media platform), and the context of each action (online, offline). This process illustrated the complexities of the ITARP sequences in the stories, as social actors often switched roles within the same story (e.g., a source actor would become a target actor and vice versa, the media actors would sometimes be neutral actors and other times were source or target actors), and sometimes a single action would simultaneously be a threat and a response. Eventually, I dropped social actors from the analysis because they could not be defined consistently per action, given the nature of the secondary data. The social actions were predominantly threat and response actions, though sometimes the actions were neither or both. Because the social actors could not be clearly defined for all actions, and the actors' perspectives were necessary to classify an action as a threat or response action, I was unable to code each action based on whether it was a threat or response. Thus, only the social actions were

used in the final analysis, and the context (online vs. offline) of each action in each sequence was used to help interpret the clusters.

Each story was organized in a spreadsheet, with each social action captured as a text description of the event and all actions ordered chronologically to construct a timeline of how the story unfolded over time. The starting point of each story was the initial identity threat action, followed by the series of relevant actions until the story was no longer viral or it no longer held the public attention that it had when it started and there were fewer news articles or social media posts about it, that is, it was no longer trending. Additionally, my dissertation co-chair and I met three times to review my data collection for each story's sequence of events. Because of these discussions, I went through three rounds of data collection for the 50 stories, until my co-chair and I agreed that all relevant events for each story were captured and correctly sequenced.

Coding of Events

I created two categories by which I could code each event, or social action. The categories are described next and in Table 3E. The first category is the context of the action, i.e., the medium (offline or online) via which the action took place (Rose, Hair, & Clark, 2011). The second category is action, with a total of 20 different actions. In addition to the six response actions defined in the Petriglieri (2011) model, I included social support as a response action. Although Petriglieri (2011) conceptualized it as a moderator, other identity threat literature considers social support as a coping response (e.g., Breakwell, 1986). Furthermore, distancing is a well-known coping response and refers to disassociating oneself from the source of identity threat (Ashforth, Kreiner, Clark, & Fugate, 2007; Breakwell, 1986; Snow & Anderson, 1987; Swim et al., 1999), and Breakwell (1986) specifies group/collective action as a coping response, so I included these actions as well. Because information sharing and information seeking

appeared as important responses in the ICT-mediated ITARP literature review, I also added these actions. The remaining nine actions emerged from the data: information capturing, decision, policy/law change, apology, misidentification, penalizing, threat of physical harm, physical harm, and "other"—the latter used for any action that was unlike any of the other actions but was important to the story. My co-chair and I had a series of meetings, initially to decide which codes were relevant and, later, to refine the coding scheme as understanding of the actions evolved. We went through seven rounds of meetings and discussions to refine the codes, and after each meeting, I re-coded all 50 stories based on the discussion and revision of codes. We had one final meeting to determine the final list of actions, ensure that the actions were orthogonal, and verify that no definition of any of the actions was related to another, that is, that the codes were mutually exclusive and collectively exhaustive. The final coding scheme is shown in Table 3E.

Using this typology, each sequence of events was coded in terms of context and action. To enhance the reliability of coding, in the final round, one of my co-chairs and I independently coded half of the stories, each using the final coding scheme. We then reviewed each other's coding of stories and had frequent meetings to discuss and resolve discrepancies. During the meetings, adjustments were made to ensure that each story had been coded accurately in terms of both actions and action context. Through these meetings, all final discrepancies in coding were resolved to consensus.

--- Insert Table 3E here ---

Event sequence analysis

As mentioned above, I reduced each story into a sequence of actions. I was interested in finding out if there was a pattern to the sequence of actions that followed the presentation (or perpetration) of an ICT-mediated identity threat. Using *STATA 15.1* statistical software, I

converted the string variables into integers. For example, derogation (*DG*) was coded 3 and seeking information (*SK*) was coded 10. Overall, I had 50 sequences of actions representing the 50 stories. Next, I created the substitution cost matrix.

Event sequence analysis involves computing inter-sequence distances using an optimal matching algorithm. In it, the distance between each sequence is calculated using a combination of insertion, deletion and substitution costs. For insertion and deletion costs, I set the value at 0.5. Moreover, I created the substitution cost matrix, representing the substitution costs for each pairs of actions, by starting with the following rules (Sabherwal & Grover, 2010):

- the actions that were inherently similar to each other needed to have lower distance (i.e., lower substitution costs);
- the cost of substituting one action for another reflected the dissimilarity between those actions; and
- no values were less than 0.5 and the highest substitution cost was 1.0

Then, considered the dissimilarity between any two actions. The dissimilarity was based on:

- *Dist1*: *Threat/response/both/neither,* which was a 2X2 matrix indicating whether the action is a threat (yes/no) and whether the action is a response (yes/no), the distances between: (i) threat and both; (ii) response and both; (iii) threat and neither; and (iv) response and neither should be smaller than between (v) threat and response; and (vi) neither and both. I set the first four as 0.5 and the last two as 1.0.
- *Dist2*: *Positive/negative/neutral* (where neutral is in between positive and negative). Therefore, I set the distances (i) between positive and neutral; and (ii) between neutral and negative as 0.5; and (iii) the distance between positive and negative as 1.0.

- *Dist3*: *Level of change in threatened identity* where I considered if the action was considerable, moderate or negligible (moderate being between considerable and negligible). I set the distances (i) between considerable and moderate; and (ii) between moderate and negligible as 0.5; and (iii) the distance between considerable and negligible as 1.0. I based my decisions on the ITARP literature (Petriglieri, 2011).
- *Dist4*: *Level of harm to anyone* where I considered whether the harm stemming from the action was severe, moderate or negligible (moderate being between considerable and negligible). I set the distances (i) between severe and moderate; and (ii) between moderate and none as 0.5; and (iii) the distance between severe and none as 1.0.

To distinguish between the actions in terms of dissimilarity, I used a combination of prior theory and qualitative data. For example, if an action was *a priori* designated as a threat, but the qualitative data indicated that it could be viewed as either a threat or response, I reclassified the action as a threat or response. For example, Petriglieri (2011) showed derogation to be a response but, I found that derogation could be either a threat or a response. Thus, the classification was based on a refined understanding of the action.

The formula which I used to calculate the costs was:

SubCost = 0.5 + (1/8) (Dist1 + Dist2 + Dist3 + Dist4)*,

[Except where the two actions were the same, in which case the formula was simply *SubCost = (1/5)* (Dist1 + Dist2 + Dist3 + Dist4 + Dist5)*, in other words, the value = 0 since all the distances were 0]

The result was a 20 x 20 symmetric substitution matrix of the actions. To enhance the reliability of the substitution cost matrix, the costs in the matrix were decided independently by me and one of my dissertation co-chairs and then discussed to reach consensus.

The optimal matching algorithm used to compute the inter-sequence distances focuses on calculating the distance between two sequences and is calculated as the least effort needed to transform one sequence to another (Havakhor & Sabherwal, 2018; Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). In this transformation process, the distance between each sequence is calculated using a combination of insertion, deletion and substitution costs. For example, sequence A→B→C can be transformed into A→C→B by deleting B and C and inserting C and B, or by deleting the B in the middle and inserting a B at the end. The cost of substituting one sequence for another is based on the total number of insertion, deletion and substitution costs required. The transformation of one sequence to another is calculated by the number of insertions and deletions that are needed. The lowest transformation cost is the distance between the two sequences (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). The effect of different sequence lengths was addressed by standardizing, that is, by dividing the number of transformations required by the length of the longer sequences (Sabherwal & Grover, 2010). I used STATA statistical software's SQ package, with the automated optimal matching algorithm, *sqom* STATA command to compute a matrix of inter-sequence distances. The output was a matrix of inter-sequence distances based on the three costs (insertion/deletion costs and the substitution cost matrix for substitution cost).

Cluster analysis

I conducted the cluster analyses with the matrix of inter-sequence distances obtained in the previous step as input. To obtain the best cluster solution, I attempted three methods: Ward's linkage, group-average linkage (which are the most popular linkage techniques) and centroid linkage (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). Moreover, to determine the most appropriate number of clusters, I used two stopping rules: the Calinski and Harabasz

pseudo-*F* index and the Duda-Hart Je(2)/Je(1) index which report the pseudo-*F* and pseudo-t^2 statistics respectively (Sabherwal & Grover, 2010). Such stopping rules involve a jump or drop, which indicates the point at which having an additional cluster does not help. A combination of the highest Calinksi-Harabasz pseudo-*F*, with a low pseudo-t^2 and the highest Je(2)/Je(1) is desired. The clusters obtained using Ward's linkage proved most interpretable as detailed in the results section. Additionally, the number of clusters to keep was also determined by the absence of small clusters.

In order to interpret the clusters, I needed to obtain the ideal sequence, described as a hypothetical sequence that best represents the equivalent of the mean for the cluster (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). The ideal sequence is considered to better represent the cluster than the centroid sequence, which is an actual sequence (Sabherwal & Grover, 2010; Sabherwal & Robey, 1993). To identify the centroid sequence, I computed the mean distance of each sequence from other sequences within its cluster and used the sequence with the smallest mean distance from other sequences within its own cluster as an approximation of the centroid sequence (Sabherwal & Robey, 1993). I then used the centroid sequence from each sequence to identify the "ideal" sequence. I also visually inspected the sequences within each cluster for frequency of occurrence of elements within the sequences, which benefitted from vertically aligning the same action across stories (as shown in Table 3F). Thus, I created a hypothetical ideal sequence that best represents each cluster.

--- Insert Table 3F here ---

Frequency Analysis and One-way ANOVA

Once I determined the clusters, I examined the frequencies of actions to gain a more in-depth understanding of how the actions are distributed among the clusters. Moreover, I

performed a one-way analysis of variance (ANOVA) on the means of the 20 actions and context (i.e., offline or online)[13] coded earlier. This helped me further improve my understanding of how each type of process (represented by each cluster and based on actions alone) unfolds (Sabherwal & Robey, 1993). In the following section, I discuss the results of the event sequence, cluster, frequency analyses and one-way ANOVA.

Results

The details for each of the 50 stories, including a synopsis for each, when each story started and ended, the total number of events or actions per story, and the number of actions that were offline or online are described in Table 3C. I ran the event sequence and cluster analyses using *STATA 15.1 for Windows* on the actions in the 50 stories using an insertion-deletion cost of 0.5 and for substitution costs, a 20 x 20 symmetric substitution matrix, constructed as described in the method section. The average sequence had approximately 62 actions and the longest sequence was the Harvey Weinstein story, which had 172 actions.

Ward's linkage method for cluster analysis suggested a three-, a four- or a five- cluster solution based on the combination of a high pseudo-F and low pseudo-t^2. The five-cluster solution has a small cluster with only five stories, whereas the three-cluster solution has a large cluster with 29 of the 50 stories. Therefore, I selected the four-cluster solution based on pseudo-F and pseudo-t^2 statistics as well as the sizes of clusters. Each cluster in this solution has than 10 or more stories; cluster 1 has 17 stories, cluster 2 has 12 stories, cluster 3 has 11 stories, and cluster 4 has 10 stories.

[13] For the purpose of this study, I did not use the aspects of source and target but chose to examine only context since my focus was on ICT-mediation and, further, because the social actors could not be defined consistently per action, given the nature of the secondary data that was collected.

I identified the centroid sequence for each cluster as follows: in cluster 1, the Ken Storey story is the centroid sequence. The Colorado medic story, the "Me before you" story, and the Women's March story are the centroid sequences for clusters 2, 3, and 4, respectively. An ideal sequence is a hypothetical sequence that best represents the cluster. Table 3F shows the ideal sequences for each of the four clusters, where, using some of the shorter sequences, I illustrate how I arrived at the ideal sequences.

To further test the selected cluster solution, I computed the mean distance of each event sequence from the sequences within its own cluster as well as the mean distance of each event sequence from the sequences in other clusters. A t-test indicates that the mean within-cluster distance is significantly ($t = -7.24$, $p < 0.0001$) less than the mean across-cluster distance. I also computed mean distance of each ideal sequence from the sequences within the cluster it represents as well as its mean distance from the sequences in other clusters. A t-test indicates that the mean distance between ideal sequences and sequences in the clusters they represent is significantly less ($t = -6.24$, $p < 0.0001$) than the mean distance between ideal sequences and the sequences in clusters other than the ones they represent. I also conducted a paired t-test comparing these two distances, both at aggregate level and for each cluster to see if there are significant differences. With the ideal sequence for each cluster, I ran t-tests to find out, for each ideal sequence, if there is a significant difference between its distance from sequences within the cluster it represents and its distance from sequences in other clusters. Conducting these two t-tests for each individual cluster also produced significant t-statistics ($p < 0.01$)[14].

[14] The results of the t-tests showed that the distance from each ideal sequence was below the mean distance from other ideal sequences in all clusters (albeit the t-test was not significant for cluster 4)

Frequency distribution results

The results based on frequency distributions are shown in Tables 3G, 3H, and 3I. Table 3G shows percentages of offline and online events by cluster. Table 3H shows the actions and context frequencies by cluster, while Table 3I shows them by sequence.

Over 75 percent of the events or actions took place online. Also, most of the online actions took place in cluster 4 (36.71%). This study focuses on ICT-mediated identity threats and coping responses; thus, a large percentage of the actions are expected to occur online. Of the online actions, derogation has the highest share (32.96%), followed by information sharing (25.12%). There were only three documented instances of meaning change and none for importance change across the four clusters. According to prior literature, both these actions are purely cognitive and, so it is not possible to know they had occurred until an individual expressly states that they have undergone such changes.

Frequency distributions also show that cluster 1 (actual frequency: 566; expected frequency: 563.34) and cluster 3 (actual frequency: 509; expected frequency: 458.85) include more online actions or events than expected, while cluster 2 (actual frequency: 175; expected frequency: 142.30) and cluster 4 (actual frequency: 303; expected frequency: 282.89) have more offline actions than expected.

Regarding percentages of online and offline actions within each cluster, Cluster 2 has the highest percentage of offline actions, and Cluster 3 has the highest percentage of online actions.

--- Insert Tables 3G, 3H, and 3I here ---

One-way ANOVA results

I wanted to determine the proportion of online actions per cluster. The results of the one-way ANOVA on the proportion of online events was not significant ($F(3,46) = 0.397$, $p = 0.76$)

indicating that the proportion of online actions do not differ across there clusters, that is, there was no significant difference across the four clusters in terms of the means of the proportion of online events within each sequence. This shows that the four clusters are similar in terms of the proportion of online and offline actions. It was surprising that cluster 4 did not have a statistically significant larger number of online actions that the other clusters despite having longer sequences. An examination of the actual sequences within cluster 4 reveals that there were more offline actions than in other clusters which balanced out the large number of online actions in terms of proportion, thus this could account for the finding (See also Table 3G).

I also compared the total number of online events per cluster using a one-way ANOVA. The results here too were not significant ($F(3,46) = 1.0$, $p = 0.40$), that is, there was no significant difference across the four clusters in terms of the mean of the total number of online actions within each sequence. In general, his result was not surprising since the focus of this study was online backlash or online responses to uploads or posts resulting in a viral story, hence I expected that there would be a similar number of online events across the clusters.

In the one-way ANOVA results for the total number of events by cluster, the results indicated that there as a significant difference in the total number of events across the clusters ($F(3,46) = 27.42$, $p = 0.000$). I therefore conducted post-hoc tests, specifically, Scheffé's test to run pairwise comparisons across the clusters. There was no significant difference across clusters 1, 2 and 3; however, cluster 4 was significantly different from the three ($p = 0.00$ for all). In addition, the mean length of a sequence in cluster 4 was over 115 while it was less than 59 for all other clusters. Thus, cluster 4 had longer sequences than the rest of the clusters. The only exception was cluster 1 such that, although it had shorter sequences, it had a slightly greater mean number of online actions. This was another surprising finding. This finding could be

explained by comparing the variances in each of the clusters. In cluster 4, the standard deviation was a lot higher (35.11) than for cluster 1 (14.69) (see Table 3J). A high standard deviation means that the data points are spread out over a wider range of values thus lowering the mean. In general, the stories in cluster 4 generated a lot of media coverage which in turn let to more support and collective action, thus there was vast amounts of information that was available per sequence compared to the other sequences in the other clusters, and hence the sequences were much longer.

--- Insert Table 3J here ---

Cluster analysis results and interpretation

The cluster analysis attempted to determine if there was any pattern in the sequences that would cause certain stories to cluster together and not with others. Although certain actions are common across all clusters (e.g., derogation and information sharing) and the majority of stories commence in similar ways, each cluster shows a distinct pattern of events over time, allowing us to define four different ICT-mediated ITARP action sequences. Table 3K shows the ideal sequences, their characteristics , the stories that were contained in each cluster, types of threatened identities and coping responses represented in the clusters. (Story IDs can be referenced in Table 3C). In the cluster interpretation discussion that follows[15], I also examine the role of ICTs in the ITARP cycle[16].

--- Insert Table 3K here ---

Cluster 1: Apologies and remembrances

The ideal sequence in this cluster is as follows: **derogation** > **information capturing** > **information sharing** > derogation > information sharing > **positive distinctiveness** >

[15] I show how each of the illustrative sequences mapped to the ideal sequence using **bold** lettering
[16] The role of ICT in each story is shown in **bold** lettering

derogation > **positive-distinctiveness** > derogation > information sharing > **positive-distinctiveness** > derogation > **apology** > **positive-distinctiveness** > information sharing > derogation > **apology** > **positive-distinctiveness** > **social support** > information sharing > **positive-distinctiveness** > **social support**.

The *apologies and remembrances* ICT-mediated ITARP process is characterized by derogatory information being captured and shared online, followed by repeated acts of apologies and positive-distinctiveness (presenting positive information) by source actors. Because the inflammatory content is captured and widely disseminated online, stories in this cluster are permanently recorded in Internet history (i.e., always remembered). Specifically, stories in this cluster typically begin with a derogatory video clip, audio file, or image (photo, tweet, etc.) being captured online or offline, is shared online and goes viral. Then the source individual/group experiences online backlash. There is generally an attempt by the receiver of the backlash to boost their image through positive-distinctiveness, but this is not immediately successful, and online derogation persists. Thus, there are additional attempts at positive-distinctiveness, followed by apologies and social support. The social support is usually extended to the recipients(s) of the online backlash, which can be the target and/or the source at this point.

One of the main differentiators in this cluster is the emphasis on the derogatory content that is initially captured (CAP) and subsequently shared widely online (IS). In some cases, the source of the identity threat deletes the inflammatory content—but because others have already copied/captured it, it is often too late and the content continues to be shared in a viral fashion, ensuring that there is a lasting digital imprint of the story that is remembered even after the story ends. Another distinctive characteristic of this cluster is the pattern of apologies (APG), positive-distinctiveness (PD), and/or support (SS) near the middle to the end of the process.

A representative example of this cluster is the story of Ken Storey, a professor at the University of Tampa; this story also represents the centroid sequence for the cluster[17]. On August 27, 2017, after the devastation from Hurricane Harvey in Texas, Ken Storey tweeted,

> "*I don't believe in instant Karma but this kinda feels like it for Texas. Hopefully this will help them realize the GOP doesn't care about them."*

Ken Storey later explained he was trying to point out that many Texans voted for Republican politicians, who are associated with anti-climate change policies, when these individuals should take climate change policies and research more seriously. However, many Republican individuals, as well as those sympathetic to Hurricane Harvey victims, were deeply offended by his tweet. His tweet was also **screen-captured**, and the screenshot of his tweet went viral before he deleted it. Users on social media heavily condemned Ken Storey's tweet. After the story went viral, Ken Storey **apologized** on Twitter multiple times, speaking positively about himself, for example, tweeting:

> *"I deeply regret a statement I posted yesterday. I never meant to wish ill upon any group. I hope all affected by Harvey recover quickly."*

Unfortunately, people were not ready to forgive him. Examples of tweets, such as the following, continued to trend on social media: *"Now he apologizes. Too late!!!! #FireKenStorey @UofTampa."* Thus, Ken Storey continued to **apologize** and issued a public statement via ABC Action News, which was published online:

[17] The Ken Storey story sequence: derogation > **derogation** > **information capturing** > **information sharing** > derogation > information sharing > derogation > **positive-distinctiveness** > derogation > concealment > information sharing > information sharing > derogation > derogation > distancing > derogation > derogation > information sharing > social support > distancing > derogation > other > **apology** > **positive-distinctiveness** > derogation > information sharing > derogation > derogation > derogation > penalty > concealment > **apology** > **positive-distinctiveness** > derogation > positive-distinctiveness > distancing > social support > positive-distinctiveness > information sharing > derogation > penalty > derogation > distancing > social support > social support > information sharing > derogation > derogation > concealment > distancing > positive-distinctiveness > derogation > derogation > social support > information sharing > derogation > derogation > information sharing > social support > positive-distinctiveness > social support > information sharing > information sharing

> *"I apologize for the tweets. My intention was never to offend anyone. I hope all affected by the storm are safe and recover quickly."*

In the same ABC interview, he continues to speak **positively** about himself,

> "*It is hard to express one's full thoughts in 140 characters and I realize that, taken out of context, some tweets may sound extremely off-putting…I never wanted people to suffer. I never wanted people to take it that way. Who people have viewed me as since that tweet—that's not who I am."*

Ken Storey was subsequently fired by the University of Tampa, a move that was retracted, and then he was forced to resign from his faculty position at the University of Tampa. The University of Tampa issued online statements on social media distancing themselves from Ken Storey's tweet and offering social support to those affected by Hurricane Harvey:

> *"As Floridians, we are well aware of the destruction and suffering associated with tropical weather. Our thoughts and prayers are with all impacted by Hurricane Harvey."*

While social media users generally offered little sympathy to Ken Storey, the American Association of University Professors (AAUP) rallied behind him and condemned the University of Tampa for their initial firing of Ken Storey. The AAUP emailed a letter to the President of the University of Tampa advising the university to reinstate Ken Storey as per the academic handbook. The letter, which was also published on the AAUP website read, in part,

> *"What is particularly concerning about the university is not that they failed to defend him, but that they in fact fired him. That's much worse. We don't expect that a university would defend whatever a faculty member says, but they certainly should defend his or her right to say it."*

Thus, the AAUP was expressing social support for Ken Storey. At the same time, social media users who condemned the University of Tampa for not acting quickly enough to fire Ken Storey came around to support the University of Tampa after Ken Storey was no longer a faculty member there. Statements on social media, such as the following, were shared widely:

"BREAKING: Ken Storey has been fired. Thank you, @UofTampa."

In an interview with Ken Storey on June 12, 2018, he reflected on how his name was forever going to appear on lists of "dumb things" that people said online or on lists of people who ruined their jobs because of their online activity. He informed me,

> *"It's funny, or ironic I guess, after this, there's always these listicles and stuff that come out: 'Twenty people who ruined their jobs with one tweet,' and things like this. I always end up on these lists now…I realized that if everyone is going to talk about this, and this is going to be out there forever. This is part of who I am from now on, unfortunately...Around the end of the year, there was a lot [of online backlash] because there were a lot of articles on top five dumb things people said this year…"*

From Ken Storey's comments, it is evident that the information posted or uploaded online is not easily forgotten and becomes a part of these individuals' digital footprint. Because of this, Storey informed me (as of June 12, 2018) that he still had not found a full-time job since the tweet scandal, and he suspected it was because of his new digital footprint:

> *"I have been trying to find a full-time job. I've been unsuccessful in that. I have gone through all of my savings now… I suspect they find my story and are not calling me because I've gotten no responses, really. I've applied to plenty of places, and places that I'm overqualified for… so I 100% think it's because of that."*

What is evident from Ken Storey's story is that the permanent digital imprint aspect of this cluster (i.e., remembrances) is far more powerful than receiving some support from sympathetic groups or individuals. The permanence of this scandal in his digital footprint will tie him to this negative event for quite some time. Furthermore, his story exemplifies the complexities of the interactions between targets and sources in the ICT-mediated ITARP context. While Storey began as a source of an identity threat (directed at Republicans), he became a target of identity threat himself as the story evolved. By extension, other groups or organizations that identified with Ken Storey (e.g., the University of Tampa and the AAUP) also experienced identity threats and responded. In the Ken Storey story, ICTs were instrumental in **accelerating**

the tweet and the subsequent shaming. As he explained, everything happened in a matter of four days,

> *"Yeah. The tweet went up on Sunday afternoon. Sunday night it was in conservative websites. Monday morning, Rush Limbaugh ran it on his show, and Alex Jones ran it on his show. Monday night, when Fox News picked up on it, that's when it really went viral, and by Tuesday it was everywhere… that evening once Fox News picked up on it, it went much bigger. Tuesday, when the school let me go, they cut off most contact with me…by Tuesday night, I was in police-assisted hiding at my friend's house…Yeah, it got very serious very quickly". – Ken Storey*

In the interview when Ken Storey said that it was difficult "…*express one's full thoughts in 140 characters...",* this was an example of the **shallowing effect** that ICTs caused because as he later tried to clarify, his tweet was part of a larger conversation of climate change that had been taken out of context:

> *"…It's just someone who took my tweet out of context. They didn't see what I was saying. I explained I was talking about climate change and talking about the politics around it…" – Ken Storey*

Another example in this cluster is the story of Sunil Tripathi, a Brown University student who was a victim of misidentification. [18]

In this story, after the Boston Marathon bombing in April 2013, photos of the bombers were uploaded online (**information capture**), and "online sleuths" attempted to identify the perpetrators. Sunil, who had gone missing a few days prior, was wrongly identified as one of the bombers and he/his family became the targets of various identity threats, to include death threats. When the Federal Bureau of Investigation (FBI) announced that they had caught the bombers

[18] The Sunil Tripathi story sequence: information sharing > information sharing > information sharing > information seeking > **information capturing** > **information sharing** > misindentification > misindentification > information sharing > misindentification > derogation > derogation > information sharing > misindentification > concealment > information seeking > information sharing > misindentification > information sharing > information sharing > derogation > concealment > social support > derogation > other > distancing > information seeking > **apology** > derogation > derogation > information sharing > **positive-distinctiveness** > positive-distinctiveness > social support > apology > information sharing > **apology** > information seeking > apology > information sharing > **social support** > **positive-distinctiveness** > derogation > information sharing > information sharing > **social support** > information sharing

and it was clear that Sunil was not one of them, editors from online news media and users on social media began to **apologize** for the online attacks on Sunil and his family and express support for them. For example, Reddit issued a formal **apology** online:

> *"We owe Sunil Tripathi's family an outpouring of love and an apology. We brought unintentional pain to them tonight. Let's find their son."*

Sunil's body was later found; he had taken his own life, and there were more **apologies** and expressions of social support for Sunil and his family.

The memory of Sunil's story remains etched in Internet history; in online searches, Sunil Tripathi's name will forever be linked to the Boston Marathon bombing. There is now even a Wikipedia page for Sunil Tripathi that discusses his story of being tied to the Boston Marathon bombing, and his family participated in creating a documentary about Sunil. In Sunil's story, ICTs played a major role in sharing and spreading **misinformation** about him, for instance, early in the story, Buzzfeed picked up the misinformation and helped share it when Andrew Kaczynski, a journalist at BuzzFeed, send out the misinformation to his 90,000 followers, thus **amplifying** and **accelerating** the story. He tweeted: "*Wow Reddit was right about the missing Brown student per the police scanner. Suspect identified as Sunil Tripathi*". In both Ken Storey and Sunil Tripathi's stories, ICTs also serve a role as a **storage repository** for their stories, allowing people view them again and again.

Prior ill-formed or careless online activity can follow individuals for the rest of their lives (whether they or others are responsible for the activity), often preventing them from being able to disassociate themselves from the story. There is currently ongoing debate in Europe and the United States on the "right to be forgotten" online—that is, that an individual has the right to request a search engine, for example, to remove certain data about them that appears when their

name is searched online (Crockett, 2016). However, this is currently unavailable as an option for individuals wishing to scrub their digital footprint.

Research on online crisis communication points to the importance of apologies in repairing a damaged image (Coombs & Holladay, 2010). In particular, using social media for crisis communication has been found to be more effective as a reputation recovery strategy than using other media, e.g., newspapers (Utz, Schultz, & Glocka, 2013). Moreover, when the actors whose reputation is damaged are the source versus the target (i.e., victims), public reactions tend to reflect higher levels of anger and a lower propensity to "let it go" (Utz et al., 2013), as was also shown when comparing the stories of Ken Storey (source) versus Sunil Tripathi (target/victim). However, research on online crisis communication is predominantly situated in the corporate communication context (e.g., Alfonso & Suzanne, 2008; Coombs & Holladay, 2010; Utz et al., 2013), pointing to a greater need to understand communication strategies for private individuals who are focal actors in ICT-mediated ITARP contexts.

Cluster 2: Penalty, more penalties, and perhaps policy

The ideal sequence in this cluster is as follows: derogation > information sharing > **derogation** > **information seeking** > **derogation** > **social support** > **apology** > **penalty** > **positive-distinctiveness** > positive-distinctiveness > **derogation** > social support > **penalty** > information sharing > positive-distinctiveness > derogation > **penalty** > **information sharing** > derogation > **penalty** > information sharing > **policy** > information sharing

The *penalty, more penalties, and perhaps policy* ICT-mediated ITARP process generally starts similarly as the other clusters (i.e., with derogation and information sharing). However, what is different from the other clusters is that the sequences are typically characterized by an investigation of some sort (coded as information seeking or SK) early in the process, followed by

an apology and then multiple instances of penalty, sometimes concluding with the creation of policy. Further, stories in this cluster often involve more extreme negativity compared to other clusters in the sense that the actors' actions are not only heavily derogated, but the actions are also penalized in some way, too. Thus, this cluster has more characteristics of legal actions (e.g., being arrested) or formal organizational sanctions (e.g., firing an employee) compared to other clusters. This is the reason that this cluster has the highest percentage of offline actions, as often these penalties (e.g., being fired or demoted, being charged with a crime) occur offline (though some penalties, such as banning an online account, occur online). Between the penalty actions, those whose image is tarnished often engage in positive-distinctiveness actions to change others' negative viewpoints of them. Compared to the previous *apologies and memories* cluster, stories in this cluster typically involve more offensive and criminal actions.

A story that illustrates the *penalty, more penalties and perhaps policy* cluster is the United States military revenge porn scandal story[19].

The story became news on March 7, 2017, when Thomas Brennan, a military veteran broke the story on a blog, "The War Horse," reporting that hundreds of marines were being **investigated** (**information seeking**) by the United States Department of Defense because of their Facebook group "*Marines United.*" According to his blog, using this private Facebook group, the marines had been sharing hundreds—possibly thousands—of nude photographs of female service members and veterans. On the same day, Reveal published an article by Thomas

[19]The US military revenge porn story sequence: **derogation** > **information seeking** > information sharing > information sharing > **derogation** > social support > derogation > information sharing > **social support** > information sharing > derogation > derogation > derogation > social support > derogation > positive-distinctiveness > social support > derogation > collective action > **positive-distinctiveness** > derogation > information sharing > positive-distinctiveness > positive-distinctiveness > information sharing > social support > information sharing > positive-distinctiveness > derogation > derogation > positive-distinctiveness > **derogation** > social support > social support > policy > OR > information sharing > derogation > **penalty** > **penalty** > policy > **penalty** > information sharing > information seeking > information sharing > **policy** > information sharing

Brennan titled "'*Marines United*' *Hundreds of marines investigated for sharing photos of naked colleagues"* (**information seeking**). The story was picked up by media, and it went viral. People discussed the story in online news websites and on social media, **derogating** the marines. Meanwhile, members of the *Marines United* Facebook group, angry with Brennan for exposing them, **kicked him out** of the group and began to send him death threats (**penalties**), but female marines expressed gratitude to him for breaking the story.

The military brass came out against the group (expressing **derogation**) with the Marine Corps spokesman saying in a statement,

> *"The Marine Corps is deeply concerned about allegations regarding the derogatory online comments and sharing of salacious photographs in Marines United, a closed website. This behavior destroys morale, erodes trust and degrades the individual. The Marine Corps does not condone this sort of behavior, which undermines its core values. As General Neller said in his recent Message to the Force, the Marine Corps' success in battle depends on trust, mutual respect and teamwork."*

Thus, the Marine Corps spokesman ended the statement by expressing **positive-distinctiveness** for the Marine Corps. He went on to confirm that there was an **investigation** (**information seeking**) and thanked Brennan for exposing the group.

As the media continued to report on the story, people continued to **derogate** the marines on Twitter, e.g.,

> *"No one who organized, contributed to or commented on the site should be serving in our military or as #Marines @USMC"*

Female marines felt that the military's response was "lackluster" (**derogation**) and the Service Women's Action Network (SWAN) went ahead and published "*Five Steps to a Better Marine Corps*" on the United States Marine Corps website, saying,

> *"The testimony of the Commandant to the Senate Armed Services Committee a week later did not indicate that the service has a full appreciation for the negative impact of the scandal on women Marines or a clear way ahead to hold participants accountable. As a result of the lackluster responses by General Neller, SWAN released Five Steps to a*

Better Marine Corps."

Victims of revenge porn perpetrated by the *Marines United* group also began to break their silence and share messages of the social support they began receiving after the story broke. For example, one woman said that she had dated a marine and he shared her photos after they broke up. She said she felt humiliated when people recognized her and called her a whore, saying, "*Some days I don't want to leave my house*." The marine commandant spoke in a video message (which was later uploaded online) derogating the marines who had taken part in the FB group and expressing support for the victims.

As more information about the scandal continued to spread, female marines **derogated** Brennan for being complicit in the threat. In support of fellow female marines, one female marine launched a GoFundMe campaign, with a stated aim: *"Join us to raise money for Headstrong, which helps provide free mental healthcare for veterans, and to take a stand to end misogyny throughout our military."*

Male marines who had not been part of the group began to share positive-distinctiveness messages about themselves and formed a group called "*Not in my Marines.*" This group also had a Facebook presence. The military brass, through Air force spokesman Lt. Col. Myles Caggins sent a statement to the media denouncing the "*Marines United*" Facebook group and **promising discipline** (**penalty**) for any service members who engaged in misconduct. He went on to say, "*This alleged behavior is inconsistent with our values."*

As the story continued to make its rounds, media investigative stories revealed that there were other United States military revenge porn Facebook groups such as "*Anon IB*" and other private online groups in the Navy. At this point, Defense Secretary James Mathis spoke up and pledged that the Department of Defense was going to take action. However, female political

leaders began to complain that it was just talk with no action. Senator Kirsten Gillibrand blasted military leaders. *"Who has been held responsible? Have you actually investigated and found guilty anybody*?" she asked leaders of the Navy and Marines at a Senate Armed Services Committee hearing in March 2017.

Then the **court-martials** (**penalty**) commenced with the first marine, a lance corporal, pleading guilty to the first Marines United court-martial on July 10, 2017. The next month, he was convicted at a special court-martial of Article 127 for threatening to distribute sexually explicit photographs and videos. The junior marine was also **charged** with several other counts (**penalty**), to include destruction of government property, theft and assault. He received a **bad conduct discharge** and was **demoted** to private (**penalties**). In September 2017, a sergeant was court-martialed and convicted for Article 80 and Article 81 for conspiracy to distribute a private video of a victim. He also received a bad conduct discharge (**penalty**) and demotion to private (**penalty**) as well as 90 days of confinement (**penalty**).

In response to the scandal, in November 2017, Congress proposed a bipartisan ENOUGH Act (**policy**), which would criminalize revenge porn at the federal level with harsher sentencing than many state laws. In December 2017, President Trump signed a defense bill into law (**policy**) that included a provision to criminalize revenge porn in the military.

This story illustrates several acts of penalty, especially toward the end of the sequence, in that the first marine was not only convicted at a court-martial, but he was demoted and received a bad conduct discharge. It also clearly illustrates the resulting policy aspect of this cluster, through the proposals and passing of revenge porn bills in Congress and the defense bill that was signed into law at the end of 2017. The role of ICTs in this illustrative story was, in the case of the marines who were sharing the photos, to provide **anonymity**, which provided them a cover

for **disinhibition**. However, they also provided Thomas Brennan, the whistleblower who broke the story in his Warhorse Blog and on a news website, **reach** which **amplified** the story. Another illustrative example is the story of the Utah nurse, Alex Wubbels, who was manhandled and forcibly arrested for preventing police officers from drawing blood from a patient without the patient's consent[20]. This story ended with the nurse testifying for the Blood Draw Bill, which was later passed by the Utah House. The video of Alex Wubbels being manhandled by the police officers was replayed several times on news outlets both offline and online (**reprocessability**); thus the ICTs helped to **amplify** the story.

Also in this cluster, I had the opportunity to interview Adam Smith, whose story overlaps with the ideal sequence in terms of repeated penalties but does not end in policy creation[21].

In August 2012, in Tucson, Arizona, Adam participated in an online protest organized against Chick-Fil-A because its CEO disparaged the LBGT community. He uploaded a video of himself berating a Chick-Fil-A employee, Rachel Elizabeth, at the drive-through window, telling her, *"I don't know how you live with yourself and work here. I don't understand it. This is a horrible corporation with horrible values"* (derogation and information sharing). The video went

[20] The Alex Wubbels story sequence: physical harm > positive-distinctiveness > physical harm > information capturing > decision > positive-distinctiveness > information sharing > information sharing > **derogation** > social support > derogation > derogation > social support > positive-distinctiveness > positive-distinctiveness > apology > derogation > distancing > distancing > information sharing > apology > positive-distinctiveness > **information seeking** > distancing > positive-distinctiveness > positive-distinctiveness > social support > information sharing > information sharing > distancing > **derogation** > information sharing > information sharing > **social support** > social support > distancing > information sharing > collective action > positive-distinctiveness > information sharing > **apology** > social support > positive-distinctiveness > derogation > information sharing > social support > policy > **penalty** > information sharing > distancing > **positive-distinctiveness** > information sharing > information sharing > positive-distinctiveness > social support > social support > **derogation** > derogation > **penalty** > derogation > **penalty** > information sharing > social support > derogation > information sharing > positive-distinctiveness > derogation > information sharing > social support > information sharing > **policy** > policy > information sharing

[21] The Adam Smith story sequence: **derogation** > derogation > information sharing > **derogation** > **social support** > social support > derogation > concealment > apology > other > derogation > concealment > information sharing > penalty > **apology** > distancing > **positive-distinctiveness** > positive-distinctiveness > distancing > positive-distinctiveness > threat of physical harm > derogation > apology > positive-distinctiveness > information sharing > derogation > information sharing > social support > information sharing > information sharing > social support > social support > social support > positive-distinctiveness > social support > **penalty** > **information sharing** > apology > information sharing > information sharing > derogation > meaning change > identity exit

viral and he became the target of online backlash (derogation). He personally visited the Chick-Fil-A store to apologize to the employee and was later fired from his CFO position at Vante and lost his teaching position at the University of Arizona (**penalties**). In an interview, Adam Smith informed me,

> *"So August 2nd, the company that I was working for called me and asked me to quit. I said, "No." They said, "Then we'll fire you." Then the company put out a press release, and that's when things really got heated because that's when Fox News was able to see. You know...It was on the news wire. At that point, I was fired, and the University of Arizona also fired me, even though they had a different way of handling it. They said, basically, I never worked for them…"*

Afterward, Vante distanced itself from Adam and issued online statements to publicly assert their company's values (positive-distinctiveness):

> *"The actions of Mr. Smith do not reflect our corporate values in any manner. Vante is an equal opportunity company with a diverse workforce, which holds diverse opinions…however, we also expect our company officers to behave in a manner commensurate with their position and in a respectful fashion that conveys these values of civility with others."*

That same day, the University of Arizona also issued an online statement similarly distancing itself from Adam and expressing positive values:

> *"Adam Smith… presently holds no appointment with the University. The University of Arizona is committed to being a community in which all members support the free and respectful exchange of varied ideas and perspectives. We strive to have a workforce that is diverse and respectful of different viewpoints."*

After he lost his two jobs, Adam published a YouTube video to explain his actions. He reaffirmed that his only intent had been to support the gay community with his protest video and that he never intended to harm Rachel Elizabeth in any way. However, Adam continued to be derogated online through media coverage and social media, such as the following tweet, *"ru talking about that bully Hater harrasing the sweet chikfila employee? Yes, good riddence. He deserved to get sacked."* The Chick-Fil-A employee received an outpouring of support and

praise for the way she handled the situation when confronted by Adam at the drive-through window. A "Support For Rachel" website was created for her, and Fox News interviewed her. During the interview, Fox News showed Rachel a clip of Mike Huckabee (politician) praising her actions, and the interview was published and shared online.

After several months, in 2013, Adam was able to land a new job in Portland, Oregon. However, he was fired from this position after his new employer discovered his viral story (p**enalty**). Over a year later, in 2015, the media shared stories of how Adam Smith and his family were living on food stamps after his social media scandal (**penalty**). In response, users online primarily continued to condemn Adam, with statements, such as *"He wasn't protesting, he was berating and bullying a young female employee, then bragging about it on youtube. He's a bully. He's getting everything that he deserves"* and *"Twisted Irony: Can he even use food stamps at Chick-Fil-A?"* While his story does not end with a new policy, it ends with information sharing through media coverage of his story as recently as April 2018. In Adam's story, the role of ICTs initially was to provide **reach** for him to share his video with a wide audience and later to **accelerate** the story as it made rounds on social media.

Stories in this cluster reflect the notion that the Internet, and in general the IT world, changes so rapidly that in many cases, the laws and policies have to "play catch-up" to online trespasses and crimes. For example, the law is silent on videotaping, such that in the absence of audio, the law deems the offender to not have committed any crime (Penney, 2016). Research on online behaviors deemed unethical and even criminal, such as revenge porn, has revealed that crimination and legislation of such actions are complex matters, with various bottlenecks, such as different interpretations of the First Amendment doctrine (Citron & Franks, 2014). According to deterrent theory and deterrence literature, the most effective deterrent for crime is the certainty

of punishment, and a potential offender's understanding that he/she will be punished, than the actual punishment itself or the severity of it (Bailey & Lott, 1976; Paternoster, 2010). There is, however, much debate on the efficacy of legislating online criminal behavior. Likewise, organizations are rather ill-equipped to properly address employees' personal use of social media outside of the work context when such usage creates stigma for the organization. This cluster points to the notion that more progress is needed in these areas.

Cluster 3: Flame war

The ideal sequence in this cluster is as follows: **information sharing** > **derogation** > **information sharing** > **derogation** > **information sharing** > **social support** > **information sharing** > **derogation** > **information sharing** > **derogation** > **information sharing** > **social support** > **information sharing** > **derogation** > **information sharing** > **derogation** > **information sharing** > **derogation** > **information sharing**

The *flame war* ICT-mediated ITARP process is typified by flaming, which refers to the act of posting offensive, hostile, rude and vulgar insults and threats online (Hardaker, 2013; Willard, 2007). The stories in this cluster fit the pattern of a flame war, as many typically involve excessive back-and-forth insults between the source and the target of the identity threat and are characterized by abusive language. The stories in this cluster also include information sharing where the parties share information with others, typically about the derogation they are receiving. A feedback loop transpires, where the response by a target individual is perceived as an identity threat by the source individual, who then responds by derogating the target individual, and this pattern of interaction persists for an extended period of time. As opposed to cluster 1, where there is also some repeated derogation-information sharing, in cluster 3, this pattern is much more repetitive. In addition, in the flame war, the apology and positive-distinctiveness

actions that are typically found in cluster 1 and cluster 2 are absent. Furthermore, the element of penalizing or penalty and policy that is typical for stories in cluster 2 is absent in cluster 3.

An illustration of this cluster is the Schwarzenegger-Trump feud story[22]. After Trump stepped down as the host of NBC's *Celebrity Apprentice* show to enter the presidential race, NBC announced that Arnold Schwarzenegger would be the new host of the show (**information sharing**). When then-candidate Trump won the Republican Party nomination, Schwarzenegger said that he would not vote for him. Trump went on to win the election and, after some poor ratings of the show, he tweeted a **derogatory** message about Schwarzenegger,

> *"Wow, the ratings are in and Arnold Schwarzenegger got "swamped" (or destroyed) by comparison to the ratings machine, DJT. So much for being a movie star-and that was season 1 compared to season 14. Now compare him to my season 1. But who cares, he supported Kasich & Hillary"*

Schwarzenegger responded later in a video tweet,

> *"There's nothing more important than the people's work. I wish you the best of luck and I hope you'll work for ALL of the American people as aggressively as you worked for your ratings. @realDonaldTrump"*

The media carried the story of the back-and-forth tweet feud (**information sharing**) and seemed to side with Schwarzenegger with headlines such as: "*Arnold Schwarzenegger Zings Donald Trump's Low Approval Rating In New Video."* People who thought the whole feud was just a ratings stunt **derogated** Schwarzenegger, but there were those who tweeted in support of him, for example,

> *"Arnold gets it! Mutual respect and common purpose create the means to reach the highest ground! #LeadDifferent"*

[22] The Schwarzenegger-Trump feud story sequence: derogation > **derogation** > derogation > **social support** > derogation > derogation > social support > derogation > **information sharing** > **derogation** > derogation > identity exit > **derogation** > **information sharing** > social support > social support > social support > derogation > derogation > derogation > **derogation** > **information sharing** > derogation > derogation > derogation > social support > derogation > **derogation** > **information sharing** > derogation > derogation > derogation > derogation

During the National Prayer Breakfast in February 2017, Trump derogated Schwarzenegger, later tweeting, *"Let's pray for @Schwarzenegger's Apprentice ratings."* Schwarzenneger responded (**derogation**) in another video tweet captioned *"The National Prayer Breakfast,"* saying in the video,

> *"Hey Donald, I have a great idea — why don't we switch jobs? You take over TV, because you're such an expert in ratings, and I take over your job. And then people can finally sleep comfortably again."*

The media published the tweets and the story about the feud (**information sharing**), adding their own critical comments, such as the following:

> *"Maybe Trump really is mad that his former friend endorsed John Kasich for president. Maybe he feels criticizing Schwarzenegger's record as California governor puts them on equal footing. Which is false. Say what you want about Schwarzenegger's performance, he ran one of the world's biggest governments for two terms; Trump is barely a month into his job. Or maybe the two have so much in common — Republicans being elected with no political experience, not-so-shining reputations when it comes to women, egos too big for the Hubble telescope to photograph — that Trump is acting like a big dog barking at itself in the mirror"* –Tony Hicks, The Mercury News

Trump continued to use every opportunity to mock Schwarzenneger for the negative ratings of *Celebrity Apprentice* and Schwarzenegger, in turn, responded by mocking him (**derogation**) for his low approval ratings as President. This pattern of back-and-forth derogation between Trump and Schwarzenegger continued with the media promulgating the story about the feud, but also providing social support by seeming to side with Schwarzenegger, which fits the pattern described for this flame war ICT-mediated ITARP cluster. In this story, the ICT characteristics of velocity and micro-messaging allowed the back-and-forth derogation and information sharing to take place.

This pattern is also evident in the story of Justine Sacco[23]. On Friday, December 20, 2013, Justice Sacco posted a derogatory tweet before boarding an 11-hour flight from London, England to Cape Town, South Africa. The **derogatory** tweet stated,

"Going to Africa. Hope I don't get AIDS. Just kidding. I'm white!"

The tweet was seen by millions of people in many countries. Unknown to Justine, her tweet was trending across many countries while she was in the air, being retweeted over 2,000 times; her name was tweeted more than 30,000 times and the hashtag #hasjustinelandedyet was used almost 100,000 times by the time she landed (**information sharing**). The online backlash against Justine was considerable, with people tweeting (**derogation**) such comments,

> *"She's quite the special snowflake. RT @happyloner: @FoxxiLiberal @JustineSacco Her entire TL is racist and prejudiced. What a nasty person*."
>
> *"I bet #JustineSacco is sitting in first class relishing in her white privilege, clueless about what awaits her."*

In this story, the **information sharing** that interspersed the **derogation** was mostly taking place on social media, especially because of the short time span within which this took place. An organization called *AID for Africa* bought the domain for justinesacco.com, which redirects people who visit this site to a site dedicated to aid donations to Africa. This was a response of **social support** for Africa because they directed people to make donations, thus supporting a coalition of organizations helping communities in Africa. There was also some social support for Justine, especially from people who either thought that her account had been

[23] The Justine Sacco story sequence: **derogation** > information capturing > **information sharing** > information sharing > **derogation** > **information sharing** > **derogation** > derogation > derogation > derogation > distancing > derogation > distancing > positive-distinctiveness > threat of physical harm > derogation > derogation > derogation > information sharing > social support > derogation > positive-distinctiveness > concealment > **social support** > apology > **information sharing** > derogation > derogation > positive-distinctiveness > derogation > positive-distinctiveness > derogation > derogation > information sharing > penalty > **derogation** > derogation > distancing > social support > information sharing > social support > derogation > information sharing > derogation > apology > apology > **information sharing** > **derogation** > information sharing > derogation > derogation > positive-distinctiveness > positive-distinctiveness > information sharing > derogation > social support > **information sharing** > social support > information sharing

hacked, as they thought that there was no possible way she could have shared such a tweet, or people who sympathized with her for the onslaught she was receiving. For example,

> *@JustineSacco Sorry that this mob of moralistic jackasses is trying to destroy your life over a tweet.*

As the media continued to cover her story (**information sharing**), such as a *New York Times* article in February 2015 titled *"How One Stupid Tweet Blew Up Justine Sacco's Life,"* social media users continued to **derogate** Justine, with comments such as the following,

> *I will never forget... @nytimes #JustineSacco tweet(s) weren't just stupid, they were racist AF. We blew her TL up!*

Justine Sacco's story ends with media coverage (**information sharing**) of her whereabouts today but also continually is shared as a cautionary tale about what not to do online.

In this cluster, I was able to interview Jenni Miller, who was involved in the story of Louise Linton (wife of Secretary of the Treasury Steven Mnuchin)[24]. Louise posted a photo (**information sharing**) on Instagram of herself deplaning a government aircraft after a government-sponsored trip, and in the caption, she bragged about her expensive designer wardrobe.

> *Great #daytrip to #Kentucky! #nicest #people #beautiful #countryside #roland #mouret pants @tomford sunnies #hermesscarf #valentinorocksstudheels #valentino #usa*

Jenni Miller responded to the Instagram post with the comment, "*Glad we could pay for your little getaway. #deplorable*" (**derogation**). In response, Louise Linton ridiculed (**derogation**) Jenni Miller publicly on Instagram, saying,

[24] The Louise/Jenni story sequence: **information sharing** > information sharing > **derogation** > derogation > positive-distinctiveness > derogation > **information sharing** > derogation > concealment > information sharing > derogation > derogation > **derogation** > **information sharing** > apology > derogation > information capturing > information sharing > positive-distinctiveness > positive-distinctiveness > **derogation** > derogation > **information sharing** > information sharing > information sharing > **information sharing** > derogation > distancing > information seeking > information seeking > information sharing > information sharing > derogation > social support > apology > apology > information sharing > **derogation** > information sharing > derogation > positive-distinctiveness > information sharing > derogation > positive-distinctiveness > **information sharing** > derogation

> "*Aw!!! Did you think this was a personal trip?! Adorable!" she wrote. "Do you think the US govt paid for our honeymoon or personal travel?! Lololol. Have you given more to the economy than me and my husband? Either as an individual earner in taxes OR in self sacrifice to your country? I'm pretty sure we paid more taxes toward our day 'trip' than you did. Pretty sure the amount we sacrifice per year is a lot more than you'd be willing to sacrifice if the choice was yours."*

After that, she included emojis of a curled bicep and a face blowing a kiss. "*You're adorably out of touch*," she said, later adding, "*your life looks cute*" before concluding, "*Go chill out and watch the new game of thrones. It's fab!"*

In this brief back and forth between Louise Linton and Jenni Miller, the pattern of derogation-information sharing can be observed. However, what happened next is that others joined in, first **derogating** Louise, with comments such as the following:

> *"You are adorably out of touch you gold digging, braggadocios women, we all see right through you @LouiseLinton @stevenmnuchin1 #LouiseLinton"*

However, users sympathetic to Louise Linton also **derogating** Jenni with offensive and vulgar insults. In an interview, Jenni shared,

> *"There was all of the background stuff of people just posting, mostly attacking my physical appearance, but posting all kinds of ridiculous things like, I was just jealous of her, just missing the point entirely...and I'm sorry if this is inappropriate, but it wasn't me who did it. There were an amazing number of pictures of people's penises. I'm not kidding you. The dick pic game was strong."*

Thus, the flaming continued with others sending Jenni offensive, vulgar and rude content, to her and about her. In both stories of Justine Sacco and Louise Linton, the back-and-forth derogation and information sharing was not necessarily between the focal source and target actors but sometimes involved outside actors who were sympathetic to either side. This is supported in prior literature. Research shows that, in online flame wars, flames can give rise to other flames, involving more and more posters (Baker, 2001); thus, outside parties are often active participants in stoking the flames of derogation. These individuals, according to Goffman

(1963), are "courtesy" members of the larger social identity group who are sympathetic to those who are threatened. Given the common pattern of the flame war, Internet acceptable use policies often include a portion on inflammatory language (Gaskin, 1998; Lee, 2005).

Just in the Schwarzenegger-Trump feud, in the Louise Linton/Jenni Miller and Justine Sacco stories, the ICT characteristics of velocity and micro-messaging provided a platform for the flame wars to take place. In addition, in Justine's story especially, ICTs were instrumental in **accelerating** and **amplifying** the story causing it to be viewed over 100,000 times in a few hours.

Cluster 4: Call to action

The ideal sequence in this cluster is as follows: **derogation** > **information** sharing > positive-distinctiveness > **social support** > **collective action** > **social support** > information sharing > derogation > **social support** > information sharing > **social support** > **distancing** > **social support** > **social support** > **penalty** > **social support** > **distancing** > **threat of physical harm** > derogation > decision > information sharing > **social support** > **penalty** > **social support**.

The phrase "call to action" refers to efforts to persuade an individual or group of individuals to act immediately (Steinberg, 1998) and has been applied in the social justice arena challenging people to rise and act toward a collective cause. Thus, the stories in this cluster often involve social justice causes with a major element of social support and collective action, defined as a group response to a state of disadvantage, motivated by perceived injustice, efficacy and social identity (van Zomeren, Postmes, & Spears, 2008).

The stories of this cluster generally begin in much the same way as the other clusters—with derogation and information sharing. Typically, the group or other group members, by virtue

of being members of the same social identity group, identify with the targeted individual(s) and, therefore, experience the identity threat vicariously. The result is massive social support and a call to action by other group members. Sometimes courtesy members who are sympathizers to the cause also join to provide social support and respond to the call for collective action (Goffman, 1963). The collective action often spills over into massive street protests or rallies as people join the cause—that is, more social support. This cluster also involves individuals or groups distancing themselves from source actors with a mix of inflammatory (threat of physical harm, penalty) and positive actions (social support) near the end of the process. Decisions (coded as DSN), which were often legal in nature, are also observed near the end of the process. In this cluster, one can see the significance of ICT mediation in the ITARP cycle in the creation of social movements that form around social media, for example, the #MeToo and #BlackLivesMatter movements, in response to social justice causes. The stories in this cluster differ from the ones in clusters 1, 2 and 3 in that there is a strong emphasis on social support and collective action present in cluster 4 with is not seen in the other clusters. In addition, the presence of the threat of physical harm in the ideal sequence for this cluster is also missing in the ideal sequences of the other clusters. For the stories in this cluster, there was also an emphasis on determination or coming to conclusion on a matter, such as in court cases, which is not evident from the ideal sequences in the other three clusters.

The story of the #MeToo movement is an illustrative example of cluster 4[25]. The story starts in early October 2017 with a *New York Times* article of Ashley Judd accusing Harvey

[25] The #MeToo movement story sequence: **derogation** > **information sharing** > derogation > **information sharing** > identity exit > **information sharing** > **information sharing** > **collective action** > **social support** > derogation > social support > social support > derogation > **social support** > information sharing > social support > derogation > **information sharing** > **derogation** > **social support** > derogation > derogation > derogation > information sharing > **social support** > positive-distinctiveness > apology > derogation > **information sharing** > positive-distinctiveness > information sharing > derogation > information sharing > information sharing > information sharing > penalty > information sharing > penalty > derogation > information sharing >

Weinstein of sexual misconduct[26] (**derogation**). After the story broke, Alyssa Milano tweeted in **support** (and **collective action**),

> *"If you've been sexually harassed or assaulted write "me too" as a reply to this tweet" "If all the women who have been sexually harassed or assaulted wrote 'Me too.' As a status, we might give people a sense of the magnitude of the problem"*[27]

In my interview with Ashley Judd, she spoke of the importance of the *New York Times* story (information sharing) and Alyssa Milano's tweet that represented a call to action (**collective action**) to victims of sexual harassment and assault. Further, she commented on the success of the "me too" hashtag in eliciting a widespread response of **social support** from victims:

> *"I think, the power of the New York Times, the quality of the investigation that Megan Twohey and Jodi Kantor did, the depth of the research that they provided…Alyssa Milano has 3.3 million followers on Twitter and she tweeted Oct 15 "if you've been sexual assualt we say #metoo." Within 24 hours #metoo has 12 million posts on Facebook. I think "me too" is just very pithy, and it allows a person to self-disclose at a level with which they're comfortable because "me too" is understood. You don't have to say anything more. We all know exactly what we mean, and then you can also share more if you want to. And so, it's very autonomous and is very empowering. I think it can give people agency and it happens to a collective because when we find out we're a legion, we feel stronger."*

From these comments, it is evident that Alyssa Milano's tweet was a call to action for victims of sexual abuse, and the words "me too" were a rallying cry that united people who had been sexually abused or harassed to band together and support each other. People—mostly

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identity exit > social support > identity exit > information sharing > derogation > derogation > information sharing > derogation > information sharing > **collective action** > **social support** > information sharing > collective action > **social support** > information sharing > derogation > information sharing > social support > collective action > social support > information sharing > derogation > information sharing > derogation > information sharing > **distancing** > information sharing > social support > information sharing > distancing > information sharing > derogation > derogation > information capturing > derogation > identity exit > information sharing > information sharing > **penalty** > **information sharing** > information sharing > derogation > social support > information sharing > derogation > information sharing > **social support** > derogation > information sharing > penalty > information sharing > **distancing** > information sharing > information seeking > distancing > information sharing > information sharing > apology > **penalty** > **information sharing**

[26] https://www.nytimes.com/2017/10/05/us/harvey-weinstein-harassment-allegations.html?_r=0
[27] https://twitter.com/Alyssa_Milano/status/919659438700670976?

women—globally responded to the call (**collective action**), and other victims' stories began to surface (information sharing) of past abuses by people in power, which triggered further social support for those who had been abused. Men also came forward in **support** of the "me too" victims, using hashtags such as #Iwill and other similarly phrased hashtags,

> *Guys, it's our turn. After yesterday's endless #MeToo stories of women being abused, assaulted and harassed, today we say #HowIWillChange.*

As the story spread, more women came forward, which led to the firing of prominent media personalities, such as when NBC fired Matt Lauer in November 2017 (**penalty**), and organizations **distancing** themselves from individuals tainted with the stigma of sexual harassment and assault (**penalty**). One of the source actors in this story, Harvey Weinstein, received **threats of physical harm** as the story grew. For example, in January 2018, the father of Mira Sorvino, one of Weintstein's victims featured in a *New Yorker* article, stated about Weinstein, *"He's going to go to jail. Oh yeah. That son of a bitch. Good for him if he goes, because if not, he has to meet me. And I will kill the motherfucker. Real simple."* The story ends with Harvey Weinstein's company filing for bankruptcy (decision) in March 2018 and the New York Police Department arresting Weinstein (**penalty**) in May 2018, followed by the media widely publishing stories of the events. One key role ICTs played in the #MeToo movement story was in **amplification**, especially when Alyssa Milano called on people everywhere to put "Me Too" as their profile status. ICTs were also there to **accelerate** the stories that came afterwards resulting in more victims coming forward and action being taken against perpetrators. ICTs were also important in providing a **medium** that facilitated the formation of the movement.

The Black Lives Matter movement story similarly demonstrates the patterns of the "call to action" cluster[28].

The story begins with George Zimmerman killing an unarmed black teenager, Trayvon Martin, in February 2012, in Sanford, Florida. As information of the incident was shared, people talked positively about Trayvon, for example, his parents said,

> *"Trayvon was our hero. At age nine, Trayvon pulled his father from a burning kitchen, saving his life. He loved sports and horseback riding. At only 17 he had a bright future ahead of him with dreams of attending college and becoming an aviation mechanic."*

In addition, there was an outpouring of social support for him and his family, and then an online petition (**collective action**) calling for George Zimmerman to be prosecuted. The support extended to the African American community (**social support**), as more called for action to be taken against Zimmerman, while derogation of Zimmerman was ongoing, predominantly on social media. Many online users continued to provide **social support** for Trayvon with "standing with Trayvon" messages trending on social media.

As a result of severe criticism from the public, the Sanford Police Chief Bill Lee announced he was stepping down as head of the department to **distance** himself from the police

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[28] The BlackLivesMatter story sequence: physical harm > **information sharing** > information sharing > **information sharing** > collective action > positive-distinctiveness > derogation > information sharing > information sharing > information sharing > positive-distinctiveness > **information sharing** > **information sharing** > derogation > derogation > social support > social support > derogation > social support > **collective action** > **social support** > information seeking > information sharing > collective action > **social support** > collective action > social support > derogation > collective action > **distancing** > decision > social support > derogation > social support > social support > information sharing > derogation > information capturing > **information sharing** > **derogation** > information sharing > social support > positive-distinctiveness > **social support** > social support > **information sharing** > derogation > information sharing > derogation > information seeking > policy > collective action > information sharing > information sharing > derogation > information sharing > penalty > information sharing > social support > decision > **penalty** > distancing > **information sharing** > information sharing > information sharing > derogation > information sharing > derogation > social support > social support > social support > social support > decision > information sharing > social support > derogation > positive-distinctiveness > positive-distinctiveness > positive-distinctiveness > derogation > derogation > social support > derogation > social support > derogation > social support > social support > information sharing > information seeking > information sharing > collective action > social support > information sharing > social support > social support > information sharing > **collective** action > **social support** > decision > information sharing > information sharing > derogation > **penalty** > derogation > positive-distinctiveness > derogation > information sharing > derogation > other > information sharing > derogation > positive-distinctiveness > information sharing > information sharing > collective action > **social support** > information sharing > positive-distinctiveness > information sharing > derogation > derogation > positive-distinctiveness > positive-distinctiveness > derogation > threat of physical harm > information sharing > derogation > information sharing > derogation > information sharing > social support > **penalty** > **information sharing**

department. Afterward, there continued to be widespread support of Trayvon Martin and his family, with then President Obama formally stating his **support** of the family and six New York senators wearing hoodies[29] in the capital chamber in March 2012 (**social support** and **collective action**).

In April 2012, George Zimmerman was arrested (**penalty**) but was later acquitted (decision) in July 2013. People in online forums discussed the acquittal of George Zimmerman (information sharing) and one person, Alicia Garza, tweeted, "*Black people. I love you. I love us. Our lives matter, Black Lives Matter #BlackLivesMatter."* This tweet became a rallying call for African Americans to speak positively about themselves and speak out against what they believed to be systemic injustices against them (**social support** and **collective action**). The hashtag went viral (information sharing) accompanied by messages of support for Trayvon and the cause (social support) and solidified the Black Lives Matter movement. The story ends with additional **support** for Trayvon Martin, such as through Paramount Network's creation of six-part docu-series titled *"Rest in Power: The Trayvon Martin Story."* In May 2018, George Zimmerman is charged with misdemeanor stalking (**penalty**) for threatening a private investigator involved with the Trayvon Martin documentary. As the media share stories of the summer 2018 release date of the docu-series, there is continued **social support** for Trayvon Martin and his family shared online. In this story, the role of ICTs was to **accelerate** as well as **amplify** the story of not just Trayvon Martin being killed but also of the acquittal of Zimmerman. They also provided a **platform** for the Black community to mobilize and form the #BLM movement.

[29] Because Trayvon Martin was wearing a hoodie at the time he was killed, and many believed this was one of the reasons he was profiled by George Zimmerman, wearing a hoodie became a symbolic supportive gesture in support of Trayvon and his family.

According to prior literature, collective action arises from perceived injustice, perceived efficacy, and a sense of social identity and is a way for disadvantaged groups to reduce prejudice associated with their social identity (Demoulin, Leyens, & Dovidio, 2013; van Zomeren et al., 2008). Participation in collective action is rooted in social justice and the desire to reduce inequality (Demoulin et al., 2013). In all of these stories, the individuals who participated in collective action shared a sense of social identity with each other—or were "courtesy" group members sympathetic to the cause (Goffman, 1963)—and were troubled by the injustice they felt, which led to the collective action behaviors. In the #MeToo movement, for example, the disadvantaged group consists of individuals who experienced sexual misconduct and/or abuse from powerful (usually) men, and their unity enabled them to take actions toward leveling the playing field and achieving justice. In the Black Lives Matter movement, African Americans rallied together in a call to action against racial prejudice and systemic racism that they face. In this way, stories typical of the "call to action" cluster include groups that strive to change perceptions of the value and characteristics of their social identity to convince others that their social group is associated with a positive image and is worthy of acceptance (Breakwell, 1986). Beyond the collective action characteristic of this cluster, the process typically proceeds to the outcomes of collective action—i.e., legal actions and penalties against the sources of the identity threat and sustained social support for the group's cause.

Cross-cluster analysis combined with preliminary interview analysis

In this analysis, I examined the results for similarities that emerged across clusters and supplement this with analysis of the preliminary interviews. By focusing on role of ICTs, I was able to classify the findings by: i) ICT-mediated ITARP experience—where I discuss the ITARP experience in general and the role of ICTs in it, and ii) ICT-mediated coping responses—where I examine the how ICTs influenced or enabled different coping strategies. These are discussed next.

I. ICT-mediated ITARP experience

Role of derogation in ICT-mediated ITARP

As previously noted, some actions or events were common across all clusters. For example, with the exception of cluster 3, all clusters began with derogation. In cluster 3, derogation is the second action. It was clear from analysis of all stories that derogation is a trigger for identity threats. In the ITARP literature, identity scholars generally regard derogation as a *response* to an identity threat (Petriglieri, 2011). Breakwell (1986) refers to this as negativism; Ashforth, Kreiner, Clark and Fugate (2007) use the phrase "condemning the condemners," and Branscombe, Ellemers, Spears and Doosje (1999) refer to this as outgroup derogation, or "sliming." In ITARP models, the process generally flows from an experienced identity threat to an individual's or group's chosen response to the outcome (e.g., maintain or eliminate identity threat). Because these models only consider the target's perspective, they ignore the impact that this response has on the receiver. When considering perspectives of both the target and source of the identity threat, actions such as derogation often serve to create a feedback loop that continues a cycle of ITARP (see Figure 3.1). This was most prominent in the flame war cluster but was observed in almost all stories.

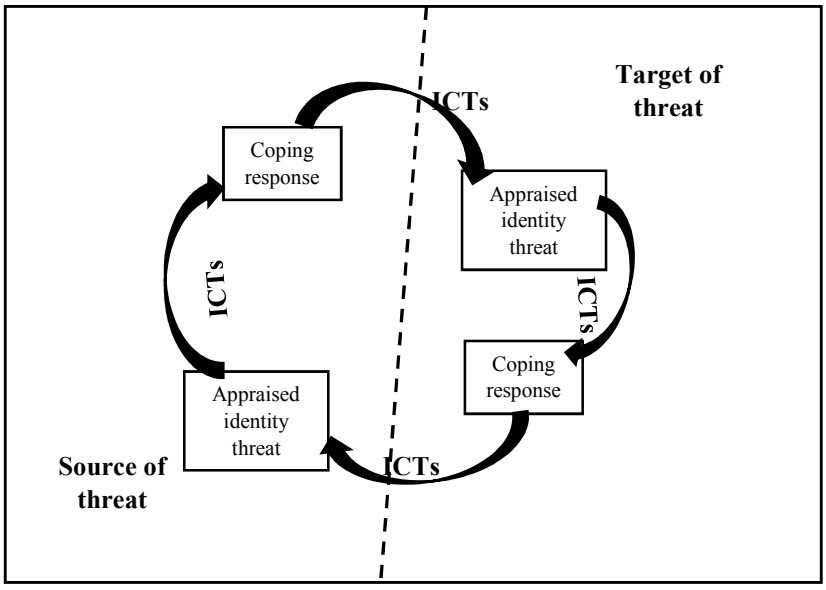

Figure 3.1: Cyclical model showing how the source of threat becomes the target of threat

Role of information sharing in ICT-mediated ITARP

In all clusters, the role of the media, both social media and mainstream media, as a prominent actor in information sharing was very apparent. In all cases, they acted as a "propellant" to keep the ITARP cycle in motion. For example, in the Sunil story (cluster 1), mainstream media remained at the family's home for a few days when the story was still breaking news claiming that Sunil was one of the Boston marathon bombers. Also, in the "What's your excuse?" mom story (also in cluster 1), Chrystal Bougon, the founder of Curvy Girls Inc., became an unwitting focus of mainstream news stories when her social media interaction with "Fit Mom" Maria Kang went viral. She was invited to interview with CNN and was featured on the *Bethenny Show*. In my interview with Chrystal, she said,

> *"I can't even remember what order things came in, but that CNN one was pretty early on. And then, you know, once it goes out on the AP, then other local networks start picking it up. So the local channels here would invite me to go, come back and do a debate. Then Inside Edition came to my store, did a whole long, full day of shooting. Then as the other media outlets get to know about it, then they also want to jump on the story, you know?"*

She continued to explain how the news cycle had a powerful influence on the way stories are kept alive and how her story finally came to a close when Nelson Mandela passed away and the news cycle shifted away from her,

> *"We were going to meet in person on the Geraldo Rivera Show in San Francisco that night, and then Nelson Mandela passed away. And then that was the end. Bless you, Nelson Mandela. I love you so much. So sorry that you've passed away because I love that man, but he was the end of this ridiculous feud that I had with the Fit Mom. I was blessed, in a way, by his passing because I was so over this media. It was just nuts for two weeks. Like every day, every day. And then the whole news cycle shifted."*

Other respondents reported similar experiences with the media but also said that they would receive new waves of responses from social media users anytime there was new mainstream media coverage of their story. For example, in the "Steve Mnuchin wife Instagram post" story, Louise Linton was featured in the news in 2018 with reputation recovery stories in *Elle* and *Vanity Fair*. When this happened, Jenni Miller said she would see a resurgence of both derogation and social support from social media users, telling me,

> *"But every time she's been in the news since then it always ramps up a little bit, and I'll get more pictures of penises, but I'll also get more nice comments, and then I'll get a couple of rude ones too, either directly to me or kind of in response to these news stories that keep popping up every few months."*

Kenneth Storey also mentioned this observation when he discussed how he now appears on lists of "dumb things" that people said online. He mentioned that reactions from social media users would ebb and flow with the news coverage of his story. In this vein, it is admittedly difficult to define a real end point to any of the stories I collected, as any future media coverage of the stories can possibly alter the sequence of events for the stories by triggering online actions from sympathetic actors who take interest in these stories.

Both the mainstream media and social media appeared to have a reciprocal relationship with each other, such that a viral story on social media became mainstream news, and the news

cycle affected the interactions of users on social media. Andrea Polito, who is a focal target actor in the "bride, groom and Dallas wedding photographer" story, experienced the demise of her photography business as a result of online social media backlash. One of Andrea's clients, an online blogger, managed to put an online spotlight on Andrea when she disagreed with one of Andrea's business practices (to which she had already contractually agreed). Andrea said,

> "*People I've never worked with, never known before were going to all my social media pages calling me a cheater, a scammer, a con artist. Saying awful things like 'There's a special place in hell for that bitch' Almost immediately I started receiving hate emails and phone calls to my studio, threatening me and calling me the most awful and hurtful names. I knew then my business was over."*

When asked how her story would be different in an era with no social media, Andrea told me,

> *"It wouldn't have played out at all. I wouldn't have been in this situation. There would have been one angry client and, I've said this before, I grew up in Oklahoma and if you were standing in line to check out at a grocery store or Walmart, someone might pick up a magazine, read the headlines, mumble something awful and then it was over. It stayed there."*

Thus, the way that mainstream media and social media interact to propel the stories into motion and keep them in motion plays a large role in the ICT-mediated ITARP cycle.

Influence of ICT-mediated ITARP on focal actors' identity

A clearly evident finding from the online and qualitative data is that the ICT-mediated ITARP experience becomes a salient part of the focal actors' identities in some cases. A related concept in the IS literature is IT identity, which is the extent to which IT use is perceived as a central part of a person's sense of self (Carter & Grover, 2015). In this study, it is not IT use per se but the salient IT experience that becomes central to how the focal actors' define themselves. As Ken Storey informed me, *"This is part of who I am from now on, unfortunately."* Zoe Quinn, who was a target of an extensive online harassment campaign, Gamergate, published an online video, in which she stated:

> *"This can't not be part of my identity and, as horrible as that is and how much I hate that somebody else put this on me, I'm going to own it instead of trying to run away from it or hide it or pretend it never happened because it did."*

She also delivered a Ted Talk presentation about her experience, as did several other focal actors in the stories, such as Ashley Judd and Anita Sarkeesian (another target of Gamergate). Andrea Polito also informed me that the experienced changed who she is; she told me,

> *"When this happened I did not know who I was anymore…I'm happier now, more than I've ever been in my entire life. I know who I am. I can be a light for those who don't understand what is happening if they are being attacked and I can bring a level of awareness that I think can help in a very positive way, one that makes people really think about their actions and reactions to online attacks and social shaming."*

She told me about two of the children's books she has authored, titled "Bye Bye, Bully" and "Mirror, Myself, and Me." She writes these books to help children understand and cope with bullying and to be comfortable with who they are, inspired by her own identity work journey stemming from her ICT-mediated ITARP story. In addition, she opened an online reputation consulting business to help others who experience public shaming and stigma, as she did. Similarly, Zoe Quinn launched Crash Override Network, an organizational support group for those who are victims of online abuse.

Role of social media platforms in ITARP

Another trend in various stories is that individuals, and even social media platforms, often expressed that they believed these platforms could improve their online environments for users to better combat ICT-mediated identity threats. Adria Richards, who was a target of online backlash involving multiple death threats, commented in a WIRED roundtable discussion[30],

> *"After a threat, I reached out to someone at a social media company. They connected me to one of their security people. I emailed them, saying, 'I'm very concerned I'm going to be murdered in the next two weeks.' They asked me to file a ticket, so I did. I didn't hear back. So I got another name to contact and sent a similar email to someone else. They*

[30] https://www.wired.com/2015/10/how-silicon-valley-can-solve-online-diversity-and-harassment/

also asked me to file a ticket. Thankfully I'm still here, so I wasn't murdered. Yay."

In the same discussion, Adria expressed that she believes this issue persists because social media platforms do not regard it as a business problem. She remarked,

> *"I'd like online harassment and abuse to become a business issue too because people are starting to compare social networks to cities that aren't safe to walk anymore."*

Several other focal actors expressed disappointment that social media platforms do not seem to have proper remedies in place to prevent online harassment, particularly severe forms of threats.

Ashley Judd commented that Facebook had a policy that was more permissive of hate speech directed toward public figures, offering them fewer protections from online backlash. She also explained that Twitter does not implement detection mechanisms for cybermob activity, instead treating tweets in isolation,

> *"They look at them as individual tweets and they might think something is unfortunate or disgusting, but they don't understand that it's part of a cybermob and a pattern that's in response to a specific tweet and subject. And that's really the area where we were trying to make some progress with Twitter, that they could look at the narrative as part of the whole cloth and not just the individual, unrelated malicious tweets."*

Additionally, social media platforms themselves have admitted to lagging behind in this arena. Dick Costolo, the former CEO of Twitter, confessed in 2015[31], *"We suck at dealing with abuse and trolls on the platform and we've sucked at it for years."* The current CEO of Twitter, Jack Dorsey, tweeted extensively on March 1, 2018 that Twitter would commit itself to improving policies and mechanisms to curb online abusive behaviors on its platform,

> *"We have witnessed abuse, harassment, troll armies, manipulation through bots and human-coordination, misinformation campaigns, and increasingly divisive echo chambers. We aren't proud of how people have taken advantage of our service, or our inability to address it fast enough. While working to fix it, we've been accused of apathy, censorship, political bias, and optimizing for our business and share price instead of the concerns of society. This is not who we are, or who we ever want to be."*

[31] https://www.theverge.com/2015/2/4/7982099/twitter-ceo-sent-memo-taking-personal-responsibility-for-the

As my study shows, there are many important actors and complex layers in the ICT-mediated ITARP cycle, and social media platforms are one of these relevant actors.

II. ICT-mediated coping responses

Role of ICT-mediation in emotion-focused coping strategies

Although individual level emotion-focused coping strategies did not appear in any of the ideal sequences, they emerged as important coping responses in all six interviews with respondents and in the online data for the stories. In particular, using some sort of expression, either through writing or producing movies or documentaries, to tell their stories was a cathartic form of coping.

An illustration can be found in the "bride, groom and Dallas wedding photographer" story (from cluster 1). After Andrea became the target of online backlash and her professional identity was destroyed, she said in my interview with her,

> *"And the following Tuesday I wrote an open letter explaining my side of the story and what had really happened because at that point I didn't trust anyone. I did not want to get interviewed or talk to anyone. So I wrote an open letter and simply just posted on Facebook and said, 'Please read,' and it was a link to my blog. My open letter was read over 1.5 million times in a 24 hour period. It had gone completely viral and read in over 190 countries. Literally almost every country in the world. And then the tide turned, and everyone started attacking the bride."*

From her words, it can be seen how writing the letter was cathartic for her at a time when she lacked trust in others. It also helped "turn the tide" of the negative onslaught that she was facing. Still, because she ended up having to close her photography business, which she said she had worked 13 years to build into a successful, prominent business, she suffered emotional turmoil from her work-related identity loss (Conroy & O'Leary-Kelly, 2014):

> *"I literally went through the stages of grief. I mean, it was like I did die. The day that I crumbled at my daughter's school I knew it was over. I just knew it. At first I was extremely sad, and then I went through being so angry, and then out through disgust, I*

was just so mad. I didn't want to look at myself in the mirror. It was hard, you know?"

Similarly, with the other clusters, the interview participants also talked about how writing about their experiences helped them process and understand what they were going through. Adam Smith participated in an in-depth journaling workshop. Jenni Miller told me, *"I actually wrote up my whole experience just kind of for myself."*

In other stories, the victims or their families published books or documentaries as a way to cope with their experiences. For example, a book on Eric Garner's life story "I Can't Breathe: A Killing on Bay Street" talks not only about the events that occurred the day he was killed, but goes deeper to describe who he was, for instance, how he worked hard to pull himself out of poverty. In another example, Zoe Quinn released a book, "Crash Override" on September 3, 2017 that described her Gamergate experience and how to deal with online harassment. A documentary about Sunil Tripathi entitled "Help find Sunil Tripathi" was released on March 25, 2015, and a six-part docuseries on Trayvon Martin titled "Rest in Power: The Trayvon Martin Story" is scheduled to be released in late July 2018.

Role of ICT-mediation in identity exit coping strategies

Though not as evident through the online data, some individuals involved in the stories described how their experience altered their identities to the point of identity exit. Petriglieri (2011) defines identity exit as a coping response where the individual completely abandons the identity and physically disengages from the identity. This is an extreme response to an identity threat and typically only pursued if there is an alternative available. Ken Storey discussed returning to graduate school to pursue a different career. Adam Smith determined that being a CFO was no longer important to him (importance change), as he no longer cared about wealth and material possessions. He moved his family to Costa Rica and opened a healing center.

Andrea Polito became an author of children's books. When discussing her former professional identity of being a photographer, she informed me,

> *"I don't have a desire to do photography anymore. I have picked up a camera maybe twice in the past 3 years…This whole experience just kind of took the passion out of it for me… For a while I looked at the camera and it just put me in a really bad mood, it made me angry."*

Therefore, in some cases, the ICT-mediated ITARP experience is so impactful that the focal actors choose identity exit as a coping response.

ICT-specific ITARP responses

Additionally, the online stories revealed ICT-specific threat and response (ITARP) actions that are not commonly discussed in the ITARP literature, which predominantly examines offline behaviors. These include doxxing, swatting, trolling, online petitions, listicles, scrubbing, online shaming, brigading/blamming, and hashtag activism. Table 3L describes these actions, maps them to the ITARP actions, and provides examples from the stories. These actions emerged as both threat and response actions in the ICT-mediated ITARP cycle.

--- Insert Table 3L here ---

Discussion

Almost every day there is a new story of online backlash because of something an individual has posted or uploaded online in an ITARP cycle, yet there has been little academic research studying this phenomenon. The study's aim is to determine whether there are patterns in the sequence of ICT-mediated ITARP events. Through event sequence and cluster analysis of 50 viral stories involving ICT-mediated ITARP and preliminary analysis of interviews with six individuals involved in some of the stories, four clusters of ICT-mediated ITARP patterns emerged: 1) apologies and remembrances, 2) penalty, more penalties and perhaps policy, 3) flame war, and 4) call to action.

Although there were similarities in the stories in the clusters, some distinct patterns emerged from the analysis. The *apologies and remembrances* cluster was represented by repeated acts of apologies and positive-distinctiveness, while the *penalty, more penalties and perhaps policy* cluster was characterized by penalties involving legal actions (e.g., criminal charges) or formal organizational sanctions (e.g., firing an employee), sometimes culminating in the creation of new policy. The *flame war* cluster was differentiated from the other clusters by excessive back-and-forth insults (i.e., flaming) between source and target actors, and the *call to action* cluster involved social justice causes with a major element of social support and collective action. The identification and description of these clusters is an important new contribution to the literature on ICT-mediated ITARP.

All clusters began in much the same way, with an online post or photo/video upload that went viral, triggering an identity threat to a target individual or group. However, as the cluster analysis confirmed, there are nuances in how people respond to identity threats. In prior literature, coping responses are conceptualized as either being emotional/problem focused or following an appraisal process that is cognitively oriented. Findings from my study, however, revealed that in an ICT-mediated context, various types of coping responses become part of the same model in that, when faced with an identity threat, individuals use a variety of coping mechanisms, some emotion-focused, some problem-focused, some cognitive, and so on. This therefore contributes to a deeper understanding of the ITARP cycle.

Prior research on ITARP has often conceptualized the process in a linear fashion; however, results from my study show that defining the target actor(s) in the ICT-mediated ITARP cycle is not straight-forward, as the source and target often switch roles as the process unfolds. This happens because many ITARP responses, such as derogation, are also triggers for

others' appraisals of identity threats. Hence, many ITARP responses as defined in the literature are classified as both responses and threats in my study, rather than responses only. Furthermore, the importance of outside actors, such as mainstream media actors, sympathetic social media actors (including the social media platforms themselves), and legal or government actors (e.g., police, attorneys, judges, politicians, etc.) emerged as critical factors that shape many ICT-mediated ITARP patterns.

In interviews, respondents confirmed the role of mainstream media and social media as important social actors in the ICT-mediated ITARP cycle, especially with regard to triggering the cycle and keeping it in motion. Traditional media and professional journalists have long been perceived in prior literature to be neutral and objective (e.g. Johnstone, Edward, & William, 1972); however, the widely diffused use of the Internet and the ability for anyone to upload and post freely has changed the nature of "media" radically. This was observed in the Sunil Tripathi story, in which Reddit came forward to apologize for its role in spreading false information.

Further, an observation that emerged was that many focal actors in the stories believe that social media platforms can—and should—do more to protect users from becoming victims in the ICT-mediated ITARP cycle. Some actors mentioned (in interviews with media or personal musings on their social media profiles) that new features should be integrated in social media platforms to protect users from becoming victims, such as semantic analysis that could detect racist, sexist, or otherwise threatening content in users' posts/tweets and flash them a warning that their content might be abusive, prompting them to seriously consider whether they want to publish the post/tweet. Future research should work with social media platforms and determine whether there is any efficacy to interventions that could prevent or reduce harm experienced by those who are targets of online identity threats.

Limitations and Directions for Future Research

As with all research, this study is not without limitations. First, because the appraisal of an identity threat is an internal process and, as such, is not visible, trying to determine precisely when an online comment or picture/video uploaded on the Internet becomes an identity threat is sometimes a difficult call. Unless an individual provides this information, I could only use my best judgement regarding the starting actions to form each sequence. In my study, I used a response from the threatened individual as an indicator that an identity threat had occurred.

Secondly, my study relied on secondary data, viz. online data; thus, I had no control over the information that was available. For some stories, there was a wealth of information, while for others, there was less and, therefore, the length or depth at which I could build the sequences was not uniform. This is mitigated to some degree by the interviews, where I was able to obtain more in-depth information about the stories. Further, the study focused only on stories that went viral because stories that do not go viral do not have the same amount of impact on the focal actors, and thus, some findings might not generalize. For example, social support might not be as visible if the story did not go viral because more people do not get to see it and offer support. Similarly, findings related to experiencing the threat at higher levels of abstraction may not generalize to stories that do not go viral.

Thirdly, the interview participants I targeted are part of a hard-to-reach population. Many individuals who have been the target of cybermobs remain fearful of engaging with others and have trust issues. Other times, the backlash they face triggers past negative experiences and they choose not to discuss their stories. In my first and second waves of contacting interview participants, some referred me to their lawyers. One attorney emailed me stating that interviewing his client about her story would only serve to re-victimize her. I was able to speak

to one focal actor on the phone, but she refused to be interviewed, informing me that the topic was one she does not discuss. One of the interview participants in this study, Adam Smith, captured this limitation,

> *"You are talking to someone right now who is open to speaking and there are many people who have had identity threats, online identity threats, and my experience. You are getting a subset of the population who have had identity threats. How I've coped is one of the reasons why I can talk to you and not feel threatened or ignore your email even."*

Therefore, even though I will continue to collect interview data, this data will be limited to individuals who have engaged in coping responses that allow them to discuss their stories. Future research should consider ways to reach sensitive populations involved in ICT-mediated ITARP cycles to open channels for more holistic explorations of this phenomenon. Additionally, future research can examine effective coping mechanisms for those affected by ICT-mediated ITARP, particularly when individuals are recipients of online backlash.

Finally, the study was limited to the United States and Canada; however, ICT-mediated ITARP is a global phenomenon, with multiple cases of people who have faced online backlash in other countries. There may be cultural and governmental differences in patterns of ICT-mediated ITARP that future research should address.

Contributions to Theory and Practice

Prior studies on ICT-mediated ITARP are mostly cross-sectional in nature and view the process mainly from the target's perspective while ignoring the source's perspective and participation in the process. Viewing this phenomenon with a snapshot lens does not fully illuminate the complex interplay of target and source actors over time, and an improved understanding of the process can lead to deeper explorations of solutions and interventions that may prevent, mitigate or even eliminate the harm that stems from the process. This study serves

as a first step in this direction, contributing to both practice and theory by using a process lens to examine the patterns of interactions over time.

Another contribution of this study is to reveal different patterns in the way ICT-mediated ITARP sequences unfold over time, identified in four clusters/types: apologies and memories; penalties, more penalties, and perhaps policy; flame war; and call to action. My study shows that the four processes generally begin similarly, with information sharing and derogation, which aligns with current conceptualizations of ICT-mediated ITARP. In other words, existing research regards ICT-mediated ITARP as actions involve trolling, cybermob behavior and traditional notions of "flame wars." While the first part of the sequences in the majority of stories I examined appeared to be typical, the steps that followed in each sequence took divergent paths. Consequently, not only did the sequences differ in the directions they went, the ICT-mediated identity threats and coping responses were also different.

Therefore, having a better understanding of these different types/processes can help predict patterns of behavior that result from certain kinds of identity threats. Thus, digital media platforms can determine improved design practices that can promote healthier and safer environments for users online. For example, in flame war behaviors, having users wait for a given time period before publishing their post or incorporating features that gauge language tone are tools that social media platforms could provide that might mitigate identity threats perpetrated via their platforms. Further, other actors in the broader network involved in ICT-mediated ITARP can improve their practices to prevent or mitigate the harm stemming from these processes. For example, when there is a social justice cause affecting a large group that involves ICT-mediated ITARP actions, it is more likely to spillover to offline protests and riots. Thus, for law enforcement, awareness of the potential for these offline behaviors would assist in

better preparedness. For the policy cluster, being proactive instead of reactive in the creation of policies, as well as improving responsiveness in the face of ill-advised online activity by in-group members, could be helpful in reducing the intensity of the stigma or taint arising from multiple penalty events. The pattern of stories in the apologies and remembrances cluster suggests that perhaps there should be more awareness and educational efforts to teach individuals that their digital footprint cannot be erased and has implications for crisis communication, particularly related to ICT-mediated identity threats. Therefore, my dissertation study reveals that a one-size-fits-all perspective of ICT-mediated ITARP misses key insights that can be leveraged from regarding the distinctive types of processes separately. Hence, a main contribution of my dissertation study is to illuminate the different types of ICT-mediated identity threat and response processes, each with its own distinct patterns of actions that have implications for unique approaches to address its respective patterns of threats.

Essay 2: References

Agarwal, N. (2017). Women's marches live updates: Millions march in L.A. and around the world following Trump's inauguration. *L.A. Times*, January 22, 2017. http://www.latimes.com/nation/la-na-pol-womens-march-live-updates-htmlstory.html, accessed February 9, 2017.

Alfonso, G. H., & Suzanne, S. (2008). Crisis communications management on the web: how internet-based technologies are changing the way public relations professionals handle business crises. *Journal of Contingencies and Crisis Management, 16*(3), 143-153.

Alvarez, R. (2008). Examining technology, structure and identity during an enterprise system implementation. *Information Systems Journal*, *18*(2), 203-224.

Álvarez-Mosquera, P. (2015). Underlining authenticity through the reCreolization process in rap music: A case of an in-group answer to an identity threat. *Sociolinguistic Studies*, *9*(1), 51.

Ashforth, B. E., Kreiner, G. E., Clark, M. A., & Fugate, M. (2007). Normalizing dirty work: Managerial tactics for countering occupational taint. *Academy of Management Journal*, *50*(1), 149-174.

Bailey, H. (2015). *Deciding what is news now: the internet's impact on local television news editorial decision process* (Doctoral dissertation, University of Missouri--Columbia).

Bailey, W. C., & Lott, R. P. (1976). Crime, punishment and personality: An examination of the deterrence question. *J. Crim. L. & Criminology*, *67*, 99

Baker, P. (2001). Moral panic and alternative identity construction in Usenet. *Journal of Computer-Mediated Communication*, *7*(1), JCMC711.

Ben-David, A., & Matamoros-Fernandez, A. (2016). Hate speech and covert discrimination on social media: Monitoring the Facebook pages of extreme-right political parties in Spain. *International Journal of Communication*, *10*, 1167-1193.

Braithwaite, A. (2016). It's about ethics in games journalism? Gamergaters and geek masculinity. *Social Media+ Society*, *2*(4), 2056305116672484.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat In N. Elmers, R. Spears & B. Doosje (Eds.) *Social identity: Context, commitment, content*, 35-58. Oxford: Blackwell.

Breakwell, G. M. (1983). *Threatened identities*. New York: John Wiley & Sons.

Breakwell, G. M. (1986). *Coping with threatened identities*. London: Methuen & Co. Ltd.

Carney, N. (2016). All lives matter, but so does race: Black lives matter and the evolving role of social media. *Humanity & Society*, *40*(2), 180-199.

Carter, M., & Grover, V. (2015). Me, My Self, and I(T): Conceptualizing Information Technology Identity and its Implications. *MIS Quarterly*, *39*(4), 931-958.

Chatzakou, D., Kourtellis, N., Blackburn, J., De Cristofaro, E., Stringhini, G., & Vakali, A. (2017). Mean birds: Detecting aggression and bullying on twitter. In *Proceedings of the 2017 ACM on web science conference, June 2017* (pp. 13-22). ACM.

Christy, K. R., & Fox, J. (2014). Leaderboards in a virtual classroom: A test of stereotype threat and social comparison explanations for women's math performance. *Computers & Education*, *78*, 66-77.

Citron, D. K., & Franks, M. A. (2014). Criminalizing revenge porn. *Wake Forest Law Review, 49*, 345-391.

Conroy, S. A., & O'Leary-Kelly, A. M. (2014). Letting go and moving on: Work-related identity loss and recovery. *Academy of Management Review*, *39*(1), 67-87.

Coombs, W. T., & Holladay, S. J. (2012). Amazon. com's Orwellian nightmare: exploring apology in an online environment. *Journal of Communication Management, 16*(3), 280-295.

Cowen, M., & Hodgson, D. (2015). Damaged identities: Examining identity regulation and identity work of Gulf project managers. *International Journal of Project Management*, *33*(7), 1523-1533.

Crockett, M. (2016). The Internet (Never) Forgets. *SMU Science. & Technology. Law Review. 19*, 151.

da Cunha, J. V., & Orlikowski, W. J. (2008). Performing catharsis: The use of online discussion forums in organizational change. *Information and Organization*, *18*(2), 132-156.

Darrow, B. (2017). Turns out attendance at Women's March events was bigger than estimated. *Fortune*, January 23, 2017. http://fortune.com/2017/01/23/womens-march-crowd-estimates/, accessed February 9, 2017.

Demoulin, S., Leyens, J. P., & Dovidio, J. F. (2013). *Intergroup misunderstandings: Impact of divergent social realities*. Psychology Press.

van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, *1*(1), 2-14.

Enzweiler, M. J. (2014). Swatting political discourse: A domestic terrorism threat. *Notre Dame L. Rev.*, *90*, 2001.

Farkas, J., Schou, J., & Neumayer, C. (2018). Platformed antagonism: racist discourses on fake Muslim Facebook pages. *Critical Discourse Studies*, 1-18.

Fox, J., & Tang, W. Y. (2017). Women's experiences with general and sexual harassment in online video games: Rumination, organizational responsiveness, withdrawal, and coping strategies. *New Media & Society*, *19*(8), 1290-1307.

Garza, A. (2014). A herstory of the# blacklivesmatter movement by Alicia Garza. *The Feminist Wire*, *7*.

Gaskin, J. E. (1998). Internet acceptable usage policies. *Information Systems Management*, *15*(2), 20-25.

Geiger, R. S. (2016). Bot-based collective blocklists in Twitter: the counterpublic moderation of harassment in a networked public space. *Information, Communication & Society*, *19*(6), 787-803.

Goffman, E. (1963). Stigma: Notes on a spoiled identity. *Jenkins, JH & Carpenter*.

Han, X. (2018). Searching for an online space for feminism? The Chinese feminist group Gender Watch Women's Voice and its changing approaches to online misogyny. Feminist Media Studies, 1-16.

Hardaker, Claire. (2013). Uh. . . . not to be nitpicky….but the past tense of drag is dragged, not drug.: An overview of trolling strategies *Journal of Language Aggression and Conflict*, *1*(1), 58-86.

Hardaker, C., & McGlashan, M. (2016). "Real men don't hate women": Twitter rape threats and group identity. *Journal of Pragmatics*, *91*, 80-93.

Havakhor, T., & Sabherwal, R. (2018). Team Processes in Virtual Knowledge Teams: The Effects of Reputation Signals and Network Density. *Journal of Management Information Systems*, *35*(1), 266-318.

Hu, Y., Farnham, S. D., & Monroy-Hernández, A. (2013). Whoo. ly: facilitating information seeking for hyperlocal communities using social media. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, April 2013. (3481-3490). ACM.

Jha, S. K., Pinsonneault, A., & Dubé, L. (2016). The evolution of an ICT platform-enabled ecosystem for poverty alleviation: The case of eKutir. *MIS Quarterly*, *40*(2), 431-445.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, *33*(7), 14-26.

Johnstone, J. W., Slawski, E. J., & Bowman, W. W. (1972). The professional values of American newsmen. *Public Opinion Quarterly, 36*(4), 522-540.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, *53*(1), 59-68.

Kim, Y., Park, Y., Lee, Y., & Park, K. (2018). Do we always adopt Facebook friends' eWOM postings? The role of social identity and threat. *International Journal of Advertising*, *37*(1), 86-104.

Kizilcec, R. F., Saltarelli, A. J., Reich, J., & Cohen, G. L. (2017). Closing global achievement gaps in MOOCs. *Science*, *355*(6322), 251-252.

de Koster, W. (2010). Contesting community online: Virtual imagery among Dutch orthodox protestant homosexuals. *Symbolic Interaction*, *33*(4), 552-577.

Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping*. New York, NY: Springer Publishing Company, Inc.

Mahoney, J. (2006). *" Beautiful Curves": Fat Women's Identities Online* (Doctoral dissertation, University of Missouri--Columbia).

Maass, A., Cadinu, M., Guarnieri, G., & Grasselli, A. (2003). Sexual harassment under social identity threat: The computer harassment paradigm. *Journal of Personality and Social Psychology*, *85*(5), 853.

Majchrzak, A., Markus, M. L., & Wareham, J. (2016). Designing for digital transformation: Lessons for information systems research from the study of ICT and societal challenges. *MIS Quarterly*, *40*(2), 267-277.

McCall, G. J., & Simmons, J. L. (1978). *Identities and interactions: an examination of human interactions in everyday life, revised edition*. New York & London: Free Press.

McKenna, K. Y., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, *4*(1), 57-75.

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. Annual Review of Sociology, 27(1), 415-444.

Megarry, J. (2014, November). Online incivility or sexual harassment? Conceptualising women's experiences in the digital age. In *Women's Studies International Forum 47*, 46-5). Pergamon.

Metzger, M. J., & Flanagin, A. J. (2013). Credibility and trust of information in online environments: The use of cognitive heuristics. Journal of Pragmatics, 59, 210-220.

Millard, T., Elliott, J., & Girdler, S. (2013). Self-management education programs for people living with HIV/AIDS: a systematic review. *AIDS patient care and STDs*, *27*(2), 103-113.

Mishra, A. N., Anderson, C., Angst, C. M., & Agarwal, R. (2012). Electronic health records assimilation and physician identity evolution: An identity theory perspective. *Information Systems Research*, *23*(3-part-1), 738-760.

Miranda, S. M., Young, A., & Yetgin, E. (2016). Are social media emancipatory or hegemonic? Societal effects of mass media digitization. *MIS Quarterly*, *40*(2), 303-329.

Nach, H., & Lejeune, A. (2010). Coping with information technology challenges to identity: A theoretical framework. *Computers in Human Behavior*, *26*(4), 618-629.

Nach, H. (2015). Identity under challenge: Examining user's responses to computerized information systems. *Management Research Review*, *38*(7), 703-725.

Nauroth, P., Gollwitzer, M., Bender, J., & Rothmund, T. (2015). Social identity threat motivates science-discrediting online comments. *PLoS One*, *10*(2), e0117476.

Nedelcu, M., & Wyss, M. (2016). 'Doing family'through ICT□mediated ordinary co□presence: transnational communication practices of Romanian migrants in Switzerland. Global Networks, 16(2), 202-218.

Nosko, A., Wood, E., & Molema, S. (2010). All about me: Disclosure in online social networking profiles: The case of FACEBOOK. *Computers in human behavior*, *26*(3), 406-418.

Oeldorf-Hirsch, A., Birnholtz, J., & Hancock, J. T. (2017). Your post is embarrassing me: Face threats, identity, and the audience on Facebook. *Computers in Human Behavior*, *73*, 92-99.

Oreglia, E., & Srinivasan, J. (2016). ICT, Intermediaries, and the Transformation of Gendered Power Structures. *MIS Quarterly*, *40*(2), 501-510.

Orlikowski, W. J. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science*, *3*(3), 398-427.

Paternoster, R. (2010). How much do we really know about criminal deterrence?. *The Journal of Criminal Law and Criminology*, 765-824.

Penney, J. (2016). Chilling effects: Online surveillance and Wikipedia use. *Berkeley Technology Law Journal*, *31*(1) 117-181.

Petriglieri, J. L. (2011). Under threat: Responses to and the consequences of threats to individuals' identities. *Academy of Management Review*, *36*(4), 641-662.

Pew. (2015). Americans more tolerant of offensive speech than others in the world. Pew Research Center. October 12, 2016. (Available at http://www.pewresearch.org/fact-tank/2016/10/12/americans-more-tolerant-of-offensive-speech-than-others-in-the-world/, retrieved December, 11, 2017).

Potthast, M., Köpsel, S., Stein, B., & Hagen, M. (2016). Clickbait detection. In *Proceedings of the European Conference on Information Retrieval* March, 2016, 810-817. Springer, Cham.

Rodriguez, J. M., Geronimus, A. T., Bound, J., & Dorling, D. (2015). Black lives matter: Differential mortality and the racial composition of the US electorate, 1970–2004. *Social Science & Medicine*, *136*, 193-199.

Rose, S., Hair, N., & Clark, M. (2011). Online customer experience: A review of the business□to□consumer online purchase context. *International Journal of Management Reviews*, *13*(1), 24-39.

Sabherwal, R., & Grover, V. (2010). A taxonomy of political processes in systems development. *Information Systems Journal*, *20*(5), 419-447.

Sabherwal, R., & Robey, D. (1993). An empirical taxonomy of implementation processes based on sequences of events in information system development. *Organization Science*, *4*(4), 548-576.

Sabherwal, R., & Robey, D. (1995). Reconciling variance and process strategies for studying information system development. *Information Systems Research, 6*(4), 303-327.

Sanders, T. C. (2008). M4M chat rooms: Individual socialization and sexual autonomy. *Culture, Health & Sexuality*, *10*(3), 263-276.

Sanderson, J., Frederick, E., & Stocz, M. (2016). When athlete activism clashes with group values: Social identity threat management via social media. *Mass Communication and Society*, *19*(3), 301-322.

Schmalz, D. L., Colistra, C. M., & Evans, K. E. (2015). Social media sites as a means of coping with a threatened social identity. *Leisure Sciences*, *37*(1), 20-38.

Snow, D. A., & Anderson, L. (1987). Identity work among the homeless: The verbal construction and avowal of personal identities. *American Journal of Sociology*, *92*(6), 1336-1371.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, *52*(6), 613.

Swim, J. K., Ferguson, M. J., & Hyers, L. L. (1999). Avoiding stigma by association: Subtle prejudice against lesbians in the form of social distancing. *Basic and Applied Social Psychology*, *21*(1), 61-68.

Teddlie, C., & Tashakkori, A. (Eds.). (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Los Angeles, CA: Sage Publications Inc.

Thrives, H. P. (2013). Privacy Publicity Social More Media Information New Stage Public When Most Other Front Back Fan Dance. *Social Media Monopolies and their Alternatives*, *2007*, 61.

Utz, S., Schultz, F., & Glocka, S. (2013). Crisis communication online: How medium, crisis type and emotions affected public reactions in the Fukushima Daiichi nuclear disaster. *Public Relations Review, 39*(1), 40-46.

Vaast, E., & Levina, N. (2015). Speaking as one, but not speaking up: Dealing with new moral taint in an occupational online community. *Information and Organization*, *25*(2), 73-98.

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, *37*(1).

Wallsten, K. (2010). "Yes we can": How online viewership, blog discussion, campaign statements, and mainstream media coverage produced a viral video phenomenon. *Journal of Information Technology & Politics*, *7*(2-3), 163-181.

Walsham, G. (1998). IT and changing professional identity: Micro□studies and macro□theory. *Journal of the American Society for Information Science*, *49*(12), 1081-1089.

Warschauer, M., Said, G. R. E., & Zohry, A. G. (2002). Language choice online: Globalization and identity in Egypt. *Journal of Computer-Mediated Communication*, *7*(4), JCMC744

Willard, N. E. (2007). *Cyberbullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress*. Research Press.

Wu, L. (2013). Social network effects on productivity and job security: Evidence from the adoption of a social networking tool. *Information Systems Research*, *24(*1), 30-51.

Yeshua-Katz, D. (2016). Online boundary work in stigmatized groups: The case of support groups for Israeli childless women. *International Journal of Communication*, *10*, 20

van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, *134*(4), 504.

Zeng, X., & Wei, L. (2013). Social ties and user content generation: Evidence from Flickr. *Information Systems Research*, *24*(1), 71-87.

Essay 2: Appendices

Table 3A: ICT-mediated ITARP literature review

Author (Year)	Theory	Method	Threatened Identity	ICT-Medium Threats	ICT-medium Responses	Responses
ICT-mediated Threats and Responses						
Ben-David & Matamoros-Fernandez (2016)	technological affordances corporate logic	network analysis and multimodal content analysis of text, images and links	immigrants foreign people	online	online	users reported offensive comments to Facebook information sharing
Braithwaite (2016)	none	qualitative content analysis	female	online gaming	online	ads pulled punishment calling attention collective action
Carney (2016)	critical theory race theory	qualitative textual analysis of Twitter posts	Black (race)	Twitter	Twitter	derogation social support collective action
Chatzakou et al. (2017)	none	experiment	non-specific target	Twitter	none	none
Christy & Fox (2014)	none	lab experiment	gender (female) identity	virtual	virtual leaderboard	role modeling for meaning change and positive distinctiveness social support
Farkas et al. (2018)	discourse theory	discourse analysis of Facebook posts and user comments	Muslim	Facebook	none	none
Fox & Tang (2017)	none	online survey	women, transgendered individuals	video games	avatar, screen name in video games	gender bending/gender neutralization, avoiding communication concealment seeking help or social support

Table 3A: ICT-mediated ITARP literature review (Cont.)

Author (Year)	Theory	Method	Threatened Identity	ICT-Medium Threats	ICT-medium Responses	Responses
ICT-mediated Threats and Responses						
Geiger (2016)	none	observation of public community discussions, interviews	non-specific target	blockbots in Twitter	programs	using algorithmic systems to respond information sharing
Han (2018)	none	in-depth face-to-face & semi-structured interviews; text analysis of online comments	gender	online forums	online forums	creating new accounts under pseudonyms rebellion collective derogation (collective action) social support
Hardaker & McGlashan (2016)	none	corpus linguistics and discourse analysis of Tweets	gender	Twitter	online forums	Emergence and construction of discourse communities social support
Kizilcec, et al. (2017)	none	two field experiments	social identity (less-developed country member identity)	online – massive open online courses MOOC	massive open online courses MOOCs	meaning change
Maass, et al. (2003)	none	two lab experiments	gender/group identity	virtual female interaction	virtual female interaction	derogation
Megarry (2014)	public sphere theory	case study	women	(microbloggi ng platform) Twitter	online forums	discussion in private forums online social support
Nosko & Wood (2010)	none	content analysis thematic analysis content examination	personal/group	online	stigma/taint	less disclosure of information online concealment

Table 3A: ICT-mediated ITARP literature review (Cont.)

Author (Year)	Theory	Method	Threatened Identity	ICT-Medium Threats	ICT-medium Responses	Responses
ICT-mediated Threats and Responses						
Oeldorf-Hirsh et al. (2017)	theories related to embarrassment	experiment	self-identity self-presentation	online/social media (Facebook)	online	humor concealment through deleting content
Sanders 2008	queer theory	online observations online and face-to-face interviews	queer	online chat rooms (M4M)		
Sanderson et al. (2016)	none	constant comparison methodology	racial identity	social media, media	social media (Facebook and Twitter)	social support information seeking information sharing collective action (protest)
Schmalz et al. (2015)	social identity theory	survey interviews	self-identity	online media (news)	Facebook	social support information sharing information seeking
Warschauer et al (2002)	none	survey interviews	Egyptian Arabic identity	online (use of English online)	online communication	problem-focused coping response compromise changes
Yeshua-Katz (2016)	computer-mediated communication theory, boundary theory, stigma	interviews	gender identity (childless woman identity)	online support groups	online support groups	concealment through manual filtering of content, ignore: 'don't feed the trolls,' derogation as catharsis, social support

Table 3A: ICT-mediated ITARP literature review (Cont.)

Author (Year)	Theory	Method	Threatened Identity	ICT-Medium Threats	ICT-medium Responses	Responses
ICT-mediated Threats						
da Cunha & Orlikowski (2008)	practice lens	qualitative content analysis, interviews	occupational identity	offline (org. change)	online discussion forum	constructing counter-narratives, sharing protest stories, expressing solidarity, humor (primarily mocking/derogation)
de Koster (2010)	symbolic interactionist theory	qualitative content analysis, interviews	self-identity (religious and gay)	offline	online forums	social support information seeking information sharing
Kim et al. (2018)	social identity theory	experiment, survey	social identity	offline	eWOM on Facebook	positive perceptions and adoption intention of eWOM on Facebook social support
Mahoney (2006)	stigma	netnography	fat identity	offline	Online message board	social support
McKenna & Bargh (1998)	none	content analysis, two surveys	LGBTQ	offline	Internet newsgroups	social support concealment through anonymity
Milliard, et al. (2014)	none	survey	HIV identity	offline	online self-management program	meaning change, concealment (withdrawal), social support
Nauroth, et al. (2015)	none	survey, content analysis of online comments	gamer identity	offline	online comments	derogation collective action
Vaast & Levina (2015)	social stigma moral taint	case study	occupational identity	offline (financial crisis 2008)	online community	blaming, social comparison, accepting, circumstantiating, diversion, conceding, reframing, recalibrating, refocusing, distancing, rejecting, resigning to taint

Table 3B: Sources of online data for the study

Website category		URLs for illustrative examples
FIRM-GENERATED CONTENT WEBSITES	**1. Editorial content websites: news websites**	o CNN (cnn.com) e.g. http://www.cnn.com/2015/08/07/politics/donald-trump-rosie-odonnell-feud/index.html o USA Today (usatoday.com) e.g. https://www.usatoday.com/story/money/2015/03/29/adam-smith-chick-fil-a-video-memoir/70629290/ o FOX News e.g. http://fox2now.com/2017/08/18/chappelle-nadal-says-she-would-apologize-to-trump-face-to-face/
	2. Editorial content websites: organization websites	o Black Lives Matter: http://blacklivesmatter.com o University of Hartford: (www.hartford.edu/) e.g.: https://www.hartford.edu/news/press-releases/2017/11/press-release-president-woodward-message.aspx; o The White House: https://www.whitehouse.gov/ e.g.: https://www.whitehouse.gov/briefings-statements/statement-president-trump/
	3. Technology websites	o CNET (cnet.com) e.g. https://www.cnet.com/news/facebook-twitter-instagram-womens-march/ o Kotaku: (kotaku.com) e.g. https://kotaku.com/5917623/awful-things-happen-when-you-try-to-make-a-video-about-video-game-stereotypes o Steam Greenlight (steamcommunity.com) e.g. https://steamcommunity.com/sharedfiles/filedetails/?id=200770535searchtext=depression+quest
USER-GENERATED CONTENT	**1. Blogs**	o Feminist Frequency (Anita Sarkeesian) https://feministfrequency.com/ o What's Your Excuse (Maria Kang): http://www.mariakang.com/2012/09/18/judging-a-book-by-its-cover/ o Milo Yiannapoulos' blog on Breitbart: http://www.breitbart.com/london/2015/02/13/the-wacky-world-of-wu-the-tortured-history-of-gamergates-self-styled-feminist-martyr/
	2. Micro-blogging websites	o Twitter (twitter.com) e.g. https://twitter.com/yashar/status/899804610256351233/photo/1
	3. User-uploaded content websites	o YouTube (youtube.com) e.g. https://www.youtube.com/watch?v=PX9reO3QnUA
	4. User-contributed content websites	o Wikipedia (wikipedia.com): e.g. https://en.wikipedia.org/wiki/Anita_Sarkeesian o Pastebin (pastebin.com) e.g. https://pastebin.com/ubmznGhn o Know Your Meme (knowyourmeme.com) e.g.: http://knowyourmeme.com/memes/people/brianna-wu
INTERACTION WEBSITES	**1. Social networking websites**	o Facebook (facebook.com) e.g. https://www.facebook.com/StopHarassingKwasnicaAndALLBreastfeedingWomen/ o Buzzfeed (buzzfeed.com) e.g. https://www.buzzfeed.com/alisonvingiano/this-is-how-a-womans-offensive-tweet-became-the-worlds-top-s?utm_term=.ncOgbvEjv#.xxYBoLKQL o Snapchat e.g. http://laist.com/2016/07/14/dani_mathers_snapchat.php

Table 3C: Details of the stories

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
1	Adam Smith vs. Chick-Fil-A employee	Adam Smith video records himself berating a Chick-fil-A employee as his part of a protest organized against Chick-fil-A's anti-LGBT stand. He uploads the video onto YouTube and becomes the target of online backlash. He is fired from his job, loses his home and after 2 years, together with is family are living on food stamps.	8/1/12 0:00	3/28/15 0:00	43	10	33
2	Adria Richards (Donglegate)	Adria Richards, while at a PyCon conference takes a photo of 2 guys who were seated behind her and tweets their photo along with comments that they were making inappropriate jokes. One of the two guys is fired and Adria becomes the target of online backlash herself. She is fired and goes into hiding due to death threats.	3/17/2013 0:00	End 2016	69	62	7
3	Anita Sarkeesian, Tropes vs. Women video series	Anita Sarkeesian launches a Kickstarter funding page to raise money for her "Tropes vs. Women" video series aimed at speaking out against objectification and misogyny against women in gaming. She becomes one of the targets of Gamergate – an online group formed to derogate female gamers.	5/17/2012 0:00	4/27/2017 0:00	93	4	89
4	Applebee's waitress posts picture of Pastor's receipt on Facebook (#TipGate)	Pastor Alois Bell has a meal at a St. Louis Applebee's restaurant, writes on the receipt that she gives God 10%, so why should she tithe. An Applebee's waitress (Chelsea) scans and posts a picture of the receipt on Facebook, triggering online shaming of the pastor. The pastor complains and Chelsea is fired from Applebee's, resulting in online backlash against Applebee's.	1/25/2013 0:00	2/13/2013 14:30	33	5	28
5	Ashley Judd viciously trolled after Kentucky-Arkansas basketball game	Ashley Judd attends an Arkansas-Kentucky March madness basketball game and live tweets during the match. She deletes the tweets after the game but becomes the victim of online trolls who harass her viciously until she announces that she is going to sue them.	3/15/2015 0:00	1/19/2017 14:28	52	5	47
6	Ben Edelman, Harvard Prof. vs. Sichuan Garden Chinese restaurant (#TakeoutGate)	Ben Edelman, a Harvard professor complains in a series of emails to Sichuan Garden Chinese Restaurant that he has been overcharged by $3 due to a price discrepancy between the online price and the offline price of the meal. The restaurant offer to refund him $4 and maintain that they hadn't done anything wrong, but Ben Edelman forwards the email communication to Boston Globe who publish them online. Ben Edelman becomes the target of online ridicule.	12/5/2014 15:18	12/10/2014 0:00	39	2	37

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
7	#BlackLivesMatter, The origins of BLM (The Trayvon Martin story)	Trayvon Martin, an unarmed black teenager is shot and killed by George Zimmerman. The act triggers anger from the African American community as well as other supporters. George Zimmerman is indicted but the jury returns a "not guilty" verdict that is shown live on TV and online triggering a series of riots. Black people begin to tweet that Black Lives do not seem to matter and BLM movement is born.	2/26/2012 19:30	5/7/2018 0:00	133	48	85
8	Boston.com's questionable Boehner joke	Boston.com report on a bartender who plotted to kill Boehner by poisoning his drink, and add to the headline "would anyone have noticed" and editorialize that "his pickled liver would have stopped the poison". Boston.com is derogated on Twitter and end up issuing an apology and demoting the editor Paul Alvarez.	1/13/2015 0:00	2/10/2015 0:00	29	5	24
9	Brianna Wu - harassment and threats from Gamergate	Brianna Wu becomes the target of Gamergate when she ridicules them for their treatment of female gamers. She is attacked viciously by online trolls and at some point is forced to flee from her home when someone sends a creepy video email to her saying he was on his way to her home to kill her.	8/27/2014 0:00	2017-2018	55	7	48
10	bride, groom and Dallas wedding photographer	Andrea Polito, a wedding photographer takes photos at Andy and Neely Moldovan's wedding. They request an album cover that was not part of the agreement and when she tells them it will cost extra, they decide to take their story to the media. The story goes viral and Andrea becomes the target of online backlash. She is forced to close her business and at some point, she uses up all the savings. She decides to fight back to restore her good name and sues them. She wins the court case and the Moldovan's are ordered to pay her $1 million in damages.	1/12/2015 0:00	Aug 2017	42	7	35
11	Colorado medic's Michelle Obama tweet	A Colorado medic tweets that Michelle Obama is a "Monkey face" and that she is not racist. The tweet goes viral and the doctor is fired.	11/24/2016 22:24	12/5/2016 20:09	49	5	44
12	Dani Mathers body shaming photo	Dani Mathers takes a photo of a 70 year old woman taking a shower in the gym and posts it online with a comment that she "cannot unsee it" and neither should we. The photo and comments go viral and Dani becomes the target of online backlash. She is prosecuted for body shaming and a new law is passed in California against body shaming.	7/13/2016 18:00	6/15/2017 0:00	45	19	26
13	Dove Facebook Ad Controversy	Dove releases a new ad showing a black woman taking off a shirt and revealing a white woman, i.e. depicting a black woman turning into a white woman. The ad puts them on the receiving end of accusations of racism and online hate/shaming. They pull the ad and defend themselves saying that the ad was not meant to be racist.	10/7/2017 0:00	10/11/2017 0:00	30	3	27

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
14	Drexel Professor - George Ciccariello-Maher's controversial tweets	Drexel Professor, George Ciccariello-Maher becomes the target of online backlash when he tweets "All I want for Christmas is White Genocide". He defends himself saying that there is no such thing but the online hate and shaming continues. Petitions are started to get him fired but the University supports him. A few months later, he tweets his disgust that someone gave up their 1st class seat to uniformed soldier and is again treated to online hate and shaming. He resigns of his own accord several months later.	12/24/2016 7:48	Jan 2018	78	3	75
15	Emma Kwasnica, breastfeeding mom	Emma Kwasnica is banned by Facebook for posting photos of herself breastfeeding. She complains that Facebook policies were not clear since they allowed other nude pictures. Other women begin a Facebook protest page "Facebook stop harassing Emma Kwasnica" and they keep up the campaign until Facebook restores her account and updates their policies to allow her to continue posting her pictures.	6/22/2007 13:00	3/16/2015 10:12	48	5	43
16	Eric Garner ("I can't breathe")	Eric Garner is arrested by police officers who accuse him of peddling. As they subdue him, they choke him to the point where he can't breathe. The encounter is caught on video and uploaded online. Police face backlash from the public for their treatment of Eric. The officers are fired and indicted but the jury return a "not guilty" verdict. This triggers massive street protests.	7/17/2014 0:00	4/20/2018 0:00	77	50	27
17	Ferguson riots (Michael Brown shooting)	Michael Brown, an unarmed black man is shot and killed by police officers. EMTs are called to the scene but do nothing to help Michael. He dies on the street and his body lies on the street for 4 hours before it is removed. The result is many days and nights of violent protests in Ferguson, Missouri. The protests are shown online and on TV each day/night with the result being that the protests become bigger every subsequent day with online conversations going on at the same time.	8/9/2014 12:04	4/2/2018 0:00	170	103	67
18	Gamergate - the harassing of Zoe Quinn/ the Quinnspiracy	Zoe Quinn releases a game "Depression Quest" to help people dealing with depression. It gets positive reviews and her boyfriend claims that she received favoritism. He pens "the zoepost" blog to derogate her. Male gamers side with him and begin Gamaergate to harass her. She becomes the victim of vicious attacks, she's doxxed and has to flee from her home. She has to hire bodyguards and get police protection for events.	12/4/2013 0:00	3/31/2018 0:00	107	17	90
19	Google Employee controversial memo	James Damore, a Google employee writes an anti-diversity memo titled "Google's ideological echo chamber" arguing that women are underrepresented in tech because of psychological differences and that Google programs are misguided for being inclusive. Google employees tweet the memo and criticize their colleague. The memo gets picked up by the media and the story goes viral triggering conversations about women's ability to do tech, and backlash against Damore for his comments. Google fires Damore and expresses support for diversity.	8/3/2017 0:00	6/27/2018 16:37	76	10	66

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
20	GOP leader (Dona Ana County) controversial FB post	Roman Jiminez, the Dona Ana County N.M RP chairman uses the party's official Facebook page to post comments about the counter-protesters at the Charlottesville rally. In the post, he says that they got "exactly what they deserved" and gets hit by online backlash. He is forced to resign.	8/13/2017 0:00	8/15/2017 0:00	24	1	23
21	Harvey Weinstein	NYT print an article on Harvey Weinstein detailing allegations of years of sexual harassment and misconduct. Weinstein issues apology statement but what follows is days and weeks of celebrities (mostly actresses) coming forward alleging that Weinstein harassed them. They are encouraged to come forward because when they see others coming forward and by messages online (mostly Twitter). Weinstein is fired from his company. Multiple organizations come forward and dissociate themselves from him as more people come forward.	10/5/2017 0:00	6/26/2018 0:00	172	45	127
22	Hilary Sargent, Boston.com editor's false stories on Ben Edelman	After Harvard Business School Prof. Ben Edelman's rant against Sichuan Garden restaurant for being overcharged by $4, Hilary Sargent, Boston.com editor mocks him in editorials and headlines, including designing a mock t-shirt saying "Didn't go to HBS, Also didn't lose my shit over FOUR dollars". She also posts a false story claiming that Ben Edelman sent a racist email to the restaurant owner. Twitter users online call her out and she receives online backlash. Boston.com demote her to senior writer.	12/9/2014 0:00	12/15/2014 0:00	26	3	23
23	Jemele Hill, ESPN and her tweets about Trump	Jemele Hill, an ESPN sports host sends a series of tweets about Pres. Trump, including one where she calls him a "white supremacist" surrounded by other white supremacists. She becomes the target of online hate and shaming. Pres. Trump demands an apology from her and from ESPN. She refuses to apologize to him but does to ESPN.	9/11/2017 16:54	2/21/2018 0:00	86	6	80
24	Justine Sacco tweet about AIDs and Africa	Justine Sacco on a trip to South Africa tweets that she's going to Africa and hopes she won't get AIDs. While she's in the air, her tweet goes viral and there is massive online backlash as Twitter users wait for her to land. When she arrives, she finds out about the tweetstorm she started and deletes her social media accounts. She is fired from her job. She issues an apology and completely goes offline.	12/20/2013 10:19	2017-2018	59	3	56
25	Kathy Griffin's gory Trump photo	Kathy Griffin's friend takes a photo of her holding a gory photo of her holding a fake Trump beheaded head. The photo goes viral and she receives negative criticism for her stunt. Events and media outlets cut off ties with her. She becomes the target of online backlash and for a time, she leaves the US.	5/30/2017 0:00	6/30/2018 9:55	119	16	103
26	Kenneth Storey, UT Prof tweet about Hurricane Harvey and Trump	After Hurricane Harvey hits Texas, Kenneth Storey becomes the target of online hate and shaming after he tweets that it was "instant karma" for voting for the GOP. UT is bombarded with calls and online messages to fire him and they do. They later rescind the firing and allow him to resign.	8/27/2017 13:32	8/31/2017 0:00	66	3	63

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
27	Leslie Jones, Ghostbusters star viciously trolled	Leslie Jones becomes the target of online hate and shaming when the trailer for the new Ghostbusters movies is released. She is so viciously attacked on Twitter, especially by alt-right activist, Milo Yiannopoulos that she announces she is quitting Twitter. People come out in support of her on Twitter. Twitter CEO gets in touch with her. Milo is banned from Twitter and Leslie reactivates her account.	3/3/2016 0:00	2/21/2017 0:00	128	7	121
28	Lindsey Stone war memorial photo	Lindsey Stone's friend, while they are both on a visit to a war memorial takes a photo of her making a rude gesture. The photo is posted online and she becomes the target of online shaming and hate. She and her friend are both fired.	10/20/2012 0:00	5/28/2015 0:00	54	10	44
29	Maria Chappelle-Nadal controversial FB post	While participating in an online discussion on Charlottesville and the president's response, Sen. Maria Chappelle-Nadal tweets "I hope Trump is Assassinated". She becomes the target of online backlash as many call for her to be fired and investigated. Both the RP and the DP reprimand her but she holds on to her seat arguing that she has the support of her constituents.	8/16/2017 23:42	3/21/2018 0:00	47	20	27
30	"Me before you" movie alienates disabled community	"Me before you" movie trailer is released and the marketing team promote it using the Twitter hashtag *#liveboldly* triggering a backlash from the disabled community, for using abled people in the movie, for portraying them as something to be pitied and generally for misrepresenting them. They protest online on Twitter, in blogs and articles; and offline during the premiere, saying that they are already living boldly.	2/3/2016 0:00	6/10/2016 16:16	69	7	62
31	#MeToo movement	Actress Ashley Judd comes forward to NYT alleging sexual harassment by Harvey Weinstein. Isa Hackett accuses Roy Price of lewd behavior and Roy Price resigns. Alyssa Milano, prompted by these allegations, encourages anyone who has ever experienced sexual harassment to post "Me too" as their status on social media. People all over the world respond and the Me Too movement is formed as many accused resign or are fired.	10/5/2017 19:48	5/25/2018 0:00	100	40	60
32	Michelle Obama post by county officials	W. Virginia county officials describe Michelle Obama as an "ape in heels" on Facebook. The tweet goes viral and the two official face immense online backlash with the result one of them (the mayor) resigns and the other official is suspended. People discover that the other official will be reinstated later and they start an online petition demanding that she be fired and she is. Michelle Obama describes these comments as being some of the most hurtful she's ever received.	11/13/2016 10:39	12/27/2016 0:00	33	17	16
33	"Night Nurse" controversial tweet	IUH nurse Taiyesha Baker tweets that every white woman is raising a son "with the propensity to be a terrorist, rapist, racist killer". A screenshot of the post is captured before she deletes it and her account, and shared widely. It goes viral and the online backlash starts. IUH release a statement saying that she does not work with babies and she is fired. Someone recreates her account and people continue to derogate her on this account.	11/23/2017 0:00	End 2017	29	3	26

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
34	Obama birther controversy	For many years after he has been elected to the presidency, Pres. Obama is the subject of a conspiracy theory in which people believe that his birthplace is not the US, and could possibly be Kenya and therefore, he should not have been elected. Even after he releases his birth certificate, the conspiracy theory persists. Pres. Trump is one of the main propagators of the conspiracy theory.	11/30/2017 0:00	8/10/2004 1:00	32	8	24
35	Pizzagate	John Podesta (from Hilary Clinton's campaign team) has his emails leaked on WikiLeaks. Conspiracy theorists use these emails to link HC to a child kidnapping-pornography ring. Comet Ping Pong Pizza is fingered as the place where they meet. The conspiracy theory goes viral online and the pizza place becomes a target of threat. A man travels from N. Carolina to DC where the pizzeria is located with gun which he fires in the restaurant. None is hurt and the man is convicted, goes to jail.	10/11/2016 0:00	6/22/2017 0:00	56	14	42
36	Prof. Quinn (University of Arkansas professor) misidentification	An alt-right group organizes a "Unite the Right" march in Charlottesville in August, 2017. One man is wearing a University of Arkansas Engineering t-shirt. Online sleuths use the photos from the rally to attempt to identify the protestors. The man with the UofA t-shirt is misidentified as Prof. Quinn who then faces online shaming and hate. He has to flee from his home for a while, all the while maintaining that he was nowhere near Virginia. The man in the t-shirt comes forward and identifies himself as the marcher.	8/12/2017 0:00	5/20/2018 0:00	55	8	47
37	Schwarzenegger-Trump feud	Trump steps down from the show "Celebrity Apprentice" when he announces that he is running for presidency. NBC announce that Schwarzenegger will be taking his place and Trump immediately starts making negative comments about the show's ratings, derogating Schwarzenegger for his hosting and saying that he (Trump), did a better job when he hosted. Schwarzenegger in turn derogates him for his ratings as president in several back-and-forth tweets.	1/6/2017 4:34	3/12/2018 11:37	33	8	25
38	Steve Mnuchin wife Instagram post	Louise Linton, with her husband the Treasury secretary, take a trip to Kentucky on a government plane to watch the solar eclipse. She posts a picture of herself on Instagram, bragging about her wardrobe, i.e., about her designer clothes and shoes. Instagram users derogate her for being out of touch. She chooses to respond to one Instagram user, Jenni Miller with negative comments, belittling her and describing her a poor. The post goes viral and Louise becomes the target of online backlash.	8/21/2017 0:00	4/2/2018 0:00	46	14	32

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
39	Sunil Tripathi mistaken for Boston marathon bomber	Sunil Tripathi, a Brown University student suffering from depression leaves home and goes missing. A few days later, the Boston marathon happens, and shortly after, the FBI release pictures of the bombers. Online sleuths attempt to identify them and one person posts online that one of the bombers looks like Sunil. This post goes viral as more people agree that it is him. The family has to shut down the FB page that they started to help look for Sunil because it is inundated with hate messages. Buzzfeed and Reddit are in the forefront of the online hate campaign against Sunil and the family. The media camp outside the family house. The FBI announce that they have arrested the bombers and the media decamp from outside the family house. Sunil's body is found, after his having committed suicide several days before. Buzzfeed, Reddit and some of the online haters apologize.	4/18/2013 17:00	April 2016	47	3	44
40	Tomi Lahren, KKK comment	Tomi Lahren, a conservative commenter posts comments online that Black Lives Matter is the new KKK and faces online backlash for her comments. She deletes the tweet and defends herself online and on TV shows but the backlash continues.	7/7/2016 3:34	9/18/2017 18:10	34	3	31
41	Trump-Rosie O'Donnell feud	Trump announces that he will give Miss USA a 2nd chance after reports of misconduct arise. Rosie O'Donnell mocks Trump on "The View" for being "moral compass for 20 year olds in America". She also shares information that he has a history of business failure. An angered Trump begins his negative comments against Rosie, both on Twitter and offline, calling her fat, a slob, a loser, etc. over several years. Rosie responds sometimes but she says she felt bullied by him.	12/20/2006 18:50	11/11/2017	49	8	41
42	Trump mocks reporter with disability	During the 2016 presidential campaigns, candidate Trump mocks a reporter's physical disability as he imitates his gestures and movement. He later denies it but the video of him doing this is replayed several times and becomes one of the most discussed topics during the campaign as people derogate him.	11/21/2015 0:00	9/6/2017 0:00	45	14	31
43	Trump-Khan feud	Pres. Trump proposes a ban on Muslims coming to the US. Various group come out against his comments, with criticism on social media and street protests. He is criticized in DP national convention. One Muslim American father, Khizir Khan speaks at the convention about his son, a Muslim who died for America. Trump derogates Khan on Twitter and in return faces criticism for his comments, both offline and online.	12/7/2015 13:50	10/24/2017 10:06	38	16	22
44	Trump-Megyn Kelly feud	Megyn Kelly, a Fox News anchor calls out Trump during the RP primary presidential debate for referring to women as "fat pigs, dogs, slobs and disgusting animals". Trump and his supporters respond negatively and bombard Megyn Kelly with negative comments on Twitter. Various groups call out Trump for his comments about Megyn Kelly and he responds by saying that she was a mess in her anger and had blood coming out of her eyes and whatever. Trump again gets criticized for his comments about her. Megyn Kelly eventually quits Fox News because of Trump and his supporters.	8/6/2015 0:00	9/20/2017 0:00	46	14	32

ID	Story Title	Story Synopsis	Start Date	End Date	Number of Events/ Actions	Number of Actions that were:	
						Offline	Online
45	Brianna Brochu harasses her roommate Jazzy Rowe	Brianna Brochu, a University of Hartford student engages in harassment behavior towards her roommate, Jazzy Rowe, including smearing bodily fluid on her backpack, and sharing posts of her harassment actions online. Jazzy reports her to University officials who fail to act and instead ask her not to go public. Frustrated by their lack of action, she goes live on Facebook to describe her situation. Brianna and the UofHartford face online backlash. Brianna is arrested and charged.	August 2017	5/10/2018 0:00	70	22	48
46	Uber CEO ranting at Uber driver	Uber CEO, Travis Kalanick takes a ride on Uber with two female companions. During the ride, he argues with the driver who was questioning him about Uber's compensation policies. The driver rates him unfavorably and later posts the video of the encounter on YouTube. Travis faces online backlash and apologizes.	2/5/2017 0:00	3/1/2017 4:50	17	3	14
47	US Military revenge porn	Thomas Brennan reveals on his blog, "Warhorse", that hundreds of male marines are members of a secret Facebook group (Marines United), which they are using to post pictures of naked female marines in revenge porn attacks. Female marines begin to speak up about harassment they have faced from their male colleagues. Many Facebook and online support networks are created in support of female marines. Military brass, Defense secretary James Mathis and veterans speak out. One marine is court martialed and several others face charges. The US military revenge porn bill is passed by Congress.	Pre-March 2017	1/1/2019 0:00	47	13	34
48	Utah nurse arrested for preventing police officers from drawing blood	Utah nurse, Alex Wubbels prevents police officers from drawing blood from an accident patient at the Utah University Hospital, saying it was against hospital policy. The police arrest her for obstruction. Her colleague films the whole encounter. Nurse Wubbels calls a press conference where she shows the video. Police officers who arrested her face massive online backlash and are eventually fired. The police union complain about how the situation was handled but nurse Wubbels receives a $500K settlement. The US Congress passes the Blood Draw Bill.	7/26/2017 14:00	1/31/2018 0:00	73	33	40
49	"What's your excuse?" mom/ Fit mom	Maria Kang posts a Facebook picture of herself and her 3 young sons, looking very fit with the caption "What's your excuse". She faces online backlash as she is accused of fat shaming. She criticizes fat acceptance activist, and owner of Curvy Girls Inc., Chrystal Bougon for her campaign called "Regular, unphotoshopped" in which she asks women to post photos of themselves in lingerie on her Curvy Girls Facebook page. In her critique on FB, Maria Kang addresses what she calls the "obesity crisis" in America. She faces online backlash for her actions but refuses to back down on her comments.	8/25/2012 0:00	3/10/2015 0:00	59	10	49
50	Women's march of January 2017	The Washington Post uploads an Access Hollywood tape where presidential candidate, Trump is heard making lewd comments about women. The tape and its transcript goes viral and people derogate Trump for his comments and general views about women. One woman decides to set up a Facebook event page calling women to march in protest in Washington D.C. on January 21, 2017, the day after Trump is inaugurated. Many women take up the call and decide to participate in the march. They organize—mostly online using Facebook and Twitter and the Women's March movement is born.	10/7/2016 0:00	1/21/2018 0:00	74	11	63

Table 3D: Interview details

Participant Name	Interview Date	Interview Length	Interview Mode	Story	Cluster	Role
Adam Smith	6/6/2018	01:07:31	Skype	Adam Smith vs. Chick-Fil-A employee	2	Source
Jenni Miller	6/9/2018	00:50:00	Skype	Steve Mnuchin's wife Instagram post	3	Target
Kenneth Storey	6/12/2018	01:15:50	Skype	Kenneth Storey's (University of Tampa Professor) tweet about Hurricane Harvey and Trump	1	Source
Chrystal Bougon	6/21/2018	00:51:00	Skype	"What's your excuse?" mom/ Fit mom	1	Target
Andrea Polito	6/27/2018	01:23:00	Phone	bride, groom and Dallas wedding photographer	1	Target
Ashley Judd	7/11/2018	00:35:13	Phone	Ashley Judd viciously trolled after Kentucky-Arkansas basketball game	1	Target
				Harvey Weinstein	4	Target
				Women's March	4	Target
				#MeToo Movement	4	Target

Table 3E: Definitions of codes

Type	Code		Definitions I am using (adapted from prior literature)
1. Context	**OF**	offline	Face to face actions (Rose et al., 2011)
	ON	online	Internet-based actions (Rose et al., 2011)
2. Action	**PD**	positive-distinctiveness	Presenting positive meanings associated with the threatened identity in an effort to educate and change the views of those who threaten the identity (Roberts, 2005)
	CL	concealment	Involves hiding or downplaying the threatened identity in front of those who threaten it (Petriglieri, 2011) e.g. deleting a tweet or post on social media
	DG	derogation	To discredit or belittle; expressing a low opinion of another; treating someone as though they are inferior, condemning their views, naming and shaming
	IE	identity exit	Abandoning the identity and physically disengaging from any role or group associated with the identity (Petriglieri, 2011)
	MC	meaning change	Changing the meanings associated with the threatened identity (Petriglieri, 2011)
	IC	importance change	Changing the importance associated with the threatened identity (Petriglieri, 2011)
	SS	social support	Stems from deliberate social buffering or providing information leading the subject to believe that he/she is cared for and loved, esteemed (Cobb, 1976; Petriglieri, 2011)
	CA	collective action	A response to a state of disadvantage motivated by perceived injustice, efficacy and social identity (van Zomeren, Postmes, & Spears, 2008)
	APG	apology	Expression of remorse for actions, words expressed or posts on social media
	IS	information sharing	A voluntary act of making information available to other; the sharer could pass information on, but does not have to (Davenport, 1995, p.5)
	SK	information seeking	Actively seeking information or calling for information seeking
	CAP	information capturing	The act of capturing images, videos and/or audio
	DSN	decision	The action of making a determination or coming to a conclusion on a finding (e.g., the results of a vote, the ruling of a judge)
	DT	distancing	The act of "differentiating oneself socially from another person or group [and] can occur by expressing attitudes or beliefs dissimilar to another's attitudes" (Swim et al., 1999, p.61)
	PL	policy/law change	company policy or laws changed
	MI	misidentification	Misidentification is defined as being wrong about an identity (Lafraire, 2013)
	PN	penalizing	Punish an offender for actions done, words expressed or posts on social media e.g. being banned on Facebook, being sued, jailed
	TPH	threat of physical harm	Threat of physical violence (battery or worse) against an individual, e.g., death threats, rape threats
	PH	physical harm	Enacted violence (battery or worse) against an individual that can be construed as a crime e.g. killing someone (death), severely beating up someone
	OR	other	An action that is not any of the types of actions described above but is important in the story

Table 3F: Illustrative event sequences

Cluster 1												
Ideal1:	**DG**	**CAP**	**IS DG IS**	**PD DG PD DG**	**IS PD**	**DG APG**	**PD IS DG**	**APG**	**PD SS**	**IS SS**	**PD**	**SS**
dove: IS		CAP	IS DG IS DG(2)	PD DG(2) PD DG(5)	IS		PD IS DG CL	APG	PD APG DG(2)		PD	SS IS
gop:	DG	CAP	IS DG DT	PD DG PD(2) DG CL		DG(2) IS DG(2)	PD IS IE IS	APG	PD(2) DG			
sarg: IS	DG(3) PD		IS PD DG(3) APG		IS DG(2) IS	DG CL IS	PD DG(2) CL		PD DG PN(2)			
uber:	DG	CAP DG	IS DG IS(3)			DG(2)	PD(2)	APG		IS(2)	PD IS	
Cluster 2												
Ideal2	**DG**	**IS DG**	**SK**	**DG SS**	**APG**	**PN**	**PD**	**PD**	**DG SS PN**	**IS PD**	**DG PN IS**	**DG PL**	**IS**
applebees: DG		IS DG IS DG IS	SK IS	DG(3)	APG	PN	PD DT IS APG IS	PD DG(2) PD	DG	IS PD	DG CL IS	DG SS CL DG(2)	IS SS
boehner:	DG	IS DG IS SS		DG(5)	APG(2)				DG DT PD APG PD	IS APG PD	DG PN IS	DG	IS APG DG(3)
nght_nrs:	DG CAP	IS CL IS DG	SK DSN IS	DG(2) SS DG(2)		PN SK	PD IS		DG PN DT	IS DG PD	DG PD		IS(2) CL
Cluster 3												
Ideal3:	**IS**	**DG IS DG**	**IS**	**SS IS DG IS**	**DG IS SS**	**IS DG**	**IS**	**DG**	**IS**	**DG**	**IS**	
obama:	IS	DG	IS DG(3) IS PN		DG IS DG IS DG(2)	IS DG PD DG	IS	DG(2) IS DG PD	IS	DG(3) SS	IS DG IS	
schwarz:		DG(3) SS DG(2) SS DG	IS DG(2) IE DG IS	SS(3) DG(4)		IS		DG(3) SS G(2)	IS	DG(4)		
Cluster 4												
Ideal4:	**DG IS DG IS DG**	**SS**	**IS CA DT**	**IS SS IS**	**SS PN**	**SS PN SS DG**	**SS IS**	**DG SS IS PN DG**	**IS SS IS**	**PN IS SS**		
march: IS(3)	DG(3) PD APG PD DG		IS DG PD CA	IS PD DSN IS CA(2) IS DT(2)	SS IS SS DT IS PD DT SS(2) IS	SS OR IS SS IS DT	SS(2) DG(2) SS(3)	DG SS DT DG IS OR IS CA SS	IS SS(2) PD DG(2) IS DG(3) CA			
			IS(2) CA PD	IS DG	SS IS							
google: IS	DG(2) IS DG SS DG	SS	IS(2) DG(2)	IS DG(2) DT PD IS SS DG	SS DG PD DG IS DG(2)	IS PN(2) IS DG(2) CA SS	PD(2) SS PD SS PD DG SS	DG PD IS PD SS DG IS(2) DG	IS DG(2) IS DG DSN PD DG IS PD DG PD IS	PN	IS DG CA SS DSN IS(2) PD SS PL	

Note: The table showcases some illustrative shorter sequences to show the alignment to ideal sequences. Table 3.3 shows what each action type (DG, CAP, etc.) indicates.

Table 3G: Percentage and frequency distribution of offline/online events by cluster

Cluster	Actions/Events that were offline	Actions/Events that were online
Cluster 1	**23.92%** (178/744)	**76.08%** (566/744)
Cluster 2	**29.86%** (175/586)	**70.14%** (411/586)
Cluster 3	**16.01%** (97/606)	**83.99%** (509/606)
Cluster 4	**26.01%** (303/1165)	**73.99%** (862/1165)

Table 3H: Frequency distribution of actions and context by cluster

Actions	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Total
	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	(Actual)
OFF	178	177.79	175	140.04	97	144.82	303	278.40	**753**
ON	566	554.40	411	436.66	509	451.57	862	868.11	**2348**
PD	129	75.32	75	59.33	57	61.35	58	117.94	**319**
CL	24	12.28	12	9.67	11	10.00	5	19.23	**52**
DG	234	241.31	156	190.06	265	196.55	367	377.86	**1022**
IE	3	2.83	2	2.23	1	2.31	6	4.44	**12**
MC	1	0.71	1	0.56	0	0.58	1	1.11	**3**
IC	0	0.00	0	0.00	0	0.00	0	0.00	**0**
SS	72	90.43	60	71.23	69	73.66	182	141.60	**383**
APG	31	16.06	20	12.65	8	13.08	9	25.14	**68**
IS	163	183.93	124	144.87	154	149.82	338	288.01	**779**
SK	8	10.15	14	8.00	5	8.27	16	15.90	**43**
CAP	18	8.03	4	6.32	5	6.54	7	12.57	**34**
DSN	0	4.72	6	3.72	0	3.85	14	7.39	**20**
DT	17	19.36	21	15.25	7	15.77	37	30.32	**82**
PL	5	4.49	8	3.53	0	3.65	6	7.02	**19**
MI	6	1.42	0	1.12	0	1.15	0	2.22	**6**
PN	20	30.70	46	24.18	9	25.00	55	48.06	**130**
PH	0	4.01	6	3.16	1	3.27	10	6.29	**17**
TPH	3	7.56	9	5.95	8	6.15	12	11.83	**32**
CA	4	14.88	18	11.72	5	12.12	36	23.29	**63**
OR	6	4.01	4	3.16	1	3.27	6	6.29	**17**
Total (actual)	**1488**		**1172**		**1212**		**2330**		**6302**

This table provides the actual frequency distributions and the expected distributions for actions and context. Twenty-eight of 80 cells had expected frequency below 5. The chi-squared value was 377.16 with 57 degrees of freedom.

Table 3I: Frequency distribution of actions[32] and context[33] by sequence

STORY ID	ACTIONS																						TOTALS
CLUSTER 1	**OF**	**ON**	**PD**	**CL**	**DG**	**IE**	**MC**	**IC**	**SS**	**APG**	**IS**	**SK**	**CAP**	**DSN**	**DT**	**PL**	**MI**	**PN**	**PH**	**TPH**	**CA**	**OR**	**Total**
a_judd	5	47	6	1	16	0	0	0	10	0	13	0	5	0	0	0	0	1	0	0	0	0	**52**
adria	62	7	12	1	23	0	0	0	8	2	14	1	0	0	4	2	0	2	0	0	0	0	**69**
bride	7	35	4	1	16	1	1	0	4	1	10	0	0	0	0	0	0	3	0	0	0	1	**42**
chappelle	20	27	9	1	11	0	0	0	4	3	15	2	2	0	0	0	0	0	0	0	0	0	**47**
dani	19	26	10	3	14	0	0	0	4	2	0	0	1	0	2	1	0	6	0	1	0	1	**45**
dove	3	27	5	1	13	0	0	0	1	3	6	0	1	0	0	0	0	0	0	0	0	0	**30**
edelman	2	37	10	0	11	0	0	0	5	4	6	0	0	0	1	0	0	1	0	0	1	0	**39**
fitmum	10	49	20	1	16	0	0	0	3	0	16	0	0	0	0	0	0	2	0	0	0	1	**59**
gop	1	23	6	1	9	1	0	0	0	1	4	0	1	0	1	0	0	0	0	0	0	0	**24**
khan	16	22	7	0	14	0	0	0	4	0	11	0	0	0	0	2	0	0	0	0	0	0	**38**
l_stone	10	44	5	5	16	0	0	0	6	5	9	0	2	0	1	0	0	2	0	1	1	1	**54**
quinn	8	47	10	1	14	1	0	0	7	1	14	1	2	0	1	0	1	0	0	0	2	0	**55**
sargent	3	23	4	2	12	0	0	0	0	1	5	0	0	0	0	0	0	2	0	0	0	0	**26**
storey	3	63	7	3	24	0	0	0	7	2	13	0	1	0	6	0	0	1	0	1	0	1	**66**
sunil	3	44	3	2	7	0	0	0	4	4	15	4	1	0	1	0	5	0	0	0	0	1	**47**
tomi	3	31	8	1	13	0	0	0	5	1	5	0	1	0	0	0	0	0	0	0	0	0	**34**
uber	3	14	3	0	5	0	0	0	0	1	7	0	1	0	0	0	0	0	0	0	0	0	**17**
CLUSTER2	**OF**	**ON**	**PD**	**CL**	**DG**	**IE**	**MC**	**IC**	**SS**	**APG**	**IS**	**SK**	**CAP**	**DSN**	**DT**	**PL**	**MI**	**PN**	**PH**	**TPH**	**CA**	**OR**	**Total**
adam	10	33	5	2	8	1	1	0	7	4	9	0	0	0	2	0	0	2	0	1	0	1	**43**
applebees	5	28	4	2	13	0	0	0	2	0	9	1	0	0	1	0	0	1	0	0	0	0	**33**
boehner	5	24	3	0	13	0	0	0	1	5	5	0	0	0	1	0	0	1	0	0	0	0	**29**
brianna	7	48	8	1	19	0	0	0	8	0	9	1	0	1	0	1	0	1	0	6	0	0	**55**
brochu	22	48	8	1	16	0	0	0	5	0	23	1	0	1	3	0	0	8	1	0	2	1	**70**
garner	50	27	3	0	17	0	0	0	10	1	23	3	1	2	0	0	0	6	3	1	7	0	**77**
kwasnica	5	43	12	0	11	0	0	0	5	1	0	0	0	0	0	1	0	12	0	0	5	1	**48**
medic	5	44	9	2	17	0	0	0	0	1	10	1	0	0	7	0	0	2	0	0	0	0	**49**

[32] Frequencies for each action type are shown in columns PD, CL, etc. Table 3E shows what each action type (PD, CL, etc.) indicates.
[33] Frequencies for each action context are shown in columns OF (offline) and online (ON).

STORY ID														ACTIONS									TOTALS
CLUSTER 1	**OF**	**ON**	**PD**	**CL**	**DG**	**IE**	**MC**	**IC**	**SS**	**APG**	**IS**	**SK**	**CAP**	**DSN**	**DT**	**PL**	**MI**	**PN**	**PH**	**TPH**	**CA**	**OR**	**Total**
mobama	17	16	2	2	9	1	0	0	3	5	0	2	1	0	0	0	0	5	0	1	2	0	**33**
nght_nrs	3	26	3	2	9	0	0	0	1	0	7	2	1	1	1	0	0	2	0	0	0	0	**29**
revenge	13	34	6	0	13	0	0	0	7	0	11	2	0	0	0	3	0	3	0	0	1	1	**47**
ut_nurse	33	40	12	0	11	0	0	0	11	3	18	1	1	1	6	3	0	3	2	0	1	0	**73**
CLUSTER 3	**OF**	**ON**	**PD**	**CL**	**DG**	**IE**	**MC**	**IC**	**SS**	**APG**	**IS**	**SK**	**CAP**	**DSN**	**DT**	**PL**	**MI**	**PN**	**PH**	**TPH**	**CA**	**OR**	**Total**
anita	4	89	9	3	27	0	0	0	22	0	23	0	2	0	0	0	0	1	0	6	0	0	**93**
birther	8	24	2	0	17	0	0	0	1	0	11	0	0	0	0	0	0	1	0	0	0	0	**32**
drexProf	3	75	8	5	36	0	0	0	8	0	13	1	1	0	2	0	0	1	0	1	2	0	**78**
j_sacco	3	56	6	1	24	0	0	0	6	3	13	0	1	0	3	0	0	1	0	1	0	0	**59**
meb4u	7	62	14	0	28	0	0	0	7	0	17	0	0	0	0	0	0	0	0	0	3	0	**69**
megyn	14	32	4	0	27	0	0	0	4	0	9	0	0	0	1	0	0	0	0	0	0	1	**46**
mnuchin	14	32	5	1	16	0	0	0	1	3	16	2	1	0	1	0	0	0	0	0	0	0	**46**
pizza	14	42	3	1	20	0	0	0	2	2	20	2	0	0	0	0	0	5	1	0	0	0	**56**
reporter	14	31	5	0	21	0	0	0	8	0	11	0	0	0	0	0	0	0	0	0	0	0	**45**
rosie	8	41	1	0	27	0	0	0	4	0	17	0	0	0	0	0	0	0	0	0	0	0	**49**
schwarz	8	25	0	0	22	1	0	0	6	0	4	0	0	0	0	0	0	0	0	0	0	0	**33**
CLUSTER 4	**OF**	**ON**	**PD**	**CL**	**DG**	**IE**	**MC**	**IC**	**SS**	**APG**	**IS**	**SK**	**CAP**	**DSN**	**DT**	**PL**	**MI**	**PN**	**PH**	**TPH**	**CA**	**OR**	**Total**
blm	48	85	11	0	28	0	0	0	28	0	39	3	1	4	2	1	0	4	1	1	9	1	**133**
ferguson	103	67	2	1	34	1	0	0	24	0	53	3	0	4	0	0	0	18	9	7	12	2	**170**
gamer	17	90	4	1	43	0	1	0	14	1	24	2	2	2	0	3	0	6	0	2	2	0	**107**
google	10	66	12	0	25	0	0	0	11	0	19	0	0	2	1	1	0	3	0	0	2	0	**76**
jemele	6	80	2	0	41	0	0	0	21	0	19	0	0	0	2	0	0	1	0	0	0	0	**86**
k_griff	16	103	5	1	54	0	0	0	14	2	32	1	0	0	5	0	0	3	0	1	0	1	**119**
l_jones	7	121	6	0	47	0	0	0	28	0	40	1	3	0	0	1	0	2	0	0	0	0	**128**
march	11	63	7	0	15	0	0	0	16	1	20	0	0	1	6	0	0	0	0	0	6	2	**74**
metoo	40	60	2	0	24	4	0	0	15	2	38	1	1	0	4	0	0	5	0	0	4	0	**100**
weinstein	45	127	7	2	56	1	0	0	11	3	54	5	0	1	17	0	0	13	0	1	1	0	**172**

Table 3J: Results from One-Way ANOVA and Post-Hoc Tests

Proportion of Online Actions					
Source	**SS**	**df**	**MS**	**F**	**Prob > F**
Between groups	0.04	3	0.01	0.397	0.756
Within groups	1.54	46	0.03		
Total	1.58	49	0.03		
Bartlett's test for equal variances: chi2(3) = 4.7299 Prob > chi2 = 0.193					
Total number of Online Events by Cluster					
Source	**SS**	**df**	**MS**	**F**	**Prob > F**
Between groups	2122.66	3	707.55	1.0	0.4036
Within groups	32709.26	46	711.07		
Total	34831.92	49	710.86		
Bartlett's test for equal variances: chi2(3) = 4.9205 Prob > chi2 = 0.178					
Total Events by Cluster					
Source	**SS**	**df**	**MS**	**F**	**Prob > F**
Between groups	37960.85	3	12653.62	27.42	0.000
Within groups	21230.13	46	461.52		
Total	59190.98	49	1207.98		
Bartlett's test for equal variances: chi2(3) = 10.8063 Prob > chi2 = 0.013					

Pairwise Comparisons of Total Events by Cluster (Scheffe's test)			
Row Mean/ Column Mean	**1**	**2**	**3**
2	5.07 (0.94)		
3	11.33 (0.61)	6.26 (0.92)	
4	72.74 (0.00)	67.67 (0.00)	61.41(0.00)
p values in brackets			

Means for Total Events by Cluster			
CLUSTER	**Summary of Mean**	**TOTAL Std. Dev.**	**Freq.**
1	43.76	14.69	17
2	48.83	17.03	12
3	55.09	18.70	11
4	116.50	35.11	10
Total	**62.02**	**34.756**	**50**

Table 3K: Interpretation of Clusters

Cluster 1: Apologies and remembrances	
Ideal sequence	*DG > CAP > IS > DG > IS > PD > DG > PD > DG > IS > PD > DG > APG > PD > IS > DG > APG > PD > SS > IS > SS > PD > SS*
Summary	The process is characterized by derogatory information being captured and shared online, followed by repeated acts of apologies and positive-distinctiveness (presenting positive information) by source actors. Because the inflammatory content is captured and widely disseminated online, stories in this cluster are permanently recorded in Internet history (i.e., always remembered).
Number of stories	17
Story IDs	2, 5, 6, 10, 12, 13, 20, 22, 26, 28, 29, 36, 39, 40, 43, 46, 49
Identities threatened	racial/ethnic, self-image, professional, political, group, moral identity, national/American
Coping responses	derogation, capturing, positive-distinctiveness, information sharing, apology, social support
Cluster 2: Penalty, more penalties, and perhaps policy	
Ideal sequence	*DG > IS > DG > SK > DG > SS > APG > PN > PD > PD > DG > SS > PN > IS > PD > DG > PN > IS > DG > PN > IS > PL > IS*
Summary	This cluster is characterized by penalties involving legal actions (e.g., criminal charges) or formal organizational sanctions (e.g., firing an employee), sometimes culminating in the creation of new policy.
Number of stories	12
Story IDs	1, 4, 8, 9, 11, 15, 16, 32, 33, 45, 47, 48
Identities threatened	racial/ethnic, group, personal, socio-economic, political, gender, religious, national/American
Coping responses	derogation, positive-distinctiveness, information sharing, information seeking, distancing, punishment**,** apology, social support, policy
Cluster 3: Flame war	
Ideal sequence	*IS > DG > IS > DG > IS > SS > IS > DG > IS > DG > IS > SS > IS > DG > IS > DG > IS > DG > IS*
Summary	Stories in this cluster fit the pattern of excessive back-and-forth insults (abusive and derogatory language) between the source and target actors, interspersed with the media's (mainstream and social) sharing information about the flame war, which serves to stoke the flames.
Number of stories	11
Story IDs	4, 14, 24, 30, 34, 35, 37, 38, 41, 42, 44
Identities threatened	personal, ethnic, group, professional
Coping responses	derogation, information sharing, social support
Cluster 4: Call to action	
Ideal sequence	*DG > IS > PD > SS > CA > SS > IS > DG > SS > IS > SS > DT > SS > SS > PN > SS > DT > TPH > DG > DSN > IS > SS > PN > SS*
Summary	Stories in this cluster often involve social justice causes with a major element of social support and collective action. Sometimes individuals or groups distance themselves from source actors with a mix of inflammatory (threat of physical harm, penalty) and positive actions (social support) near the end of the process.
Number of stories	10
Story IDs	7, 17, 18, 19, 21, 23, 25, 27, 31, 50
Identities threatened	personal, gender, racial/ethnic
Coping responses	derogation, positive-distinctiveness, collective action, social support, information sharing, penalty, threat of physical harm, decision-making

APG: apology	DSN: decision	SK: information seeking
CA: collective action	IS: information sharing	SS: social support
CAP: information capture	PD: positive-distinctiveness	TPH: threat of physical harm
DG: derogation	PN: penalty	

Table 3L: ICT-specific threat and response (ITARP) actions identified from the stories

ICT-specific ITARP action	Action(s)	Description	Threat/ Response	Example from stories
Doxxing	Derogation Threat of physical harm	A threat action which involves revealing personally-identifying information about someone (Thrives, 2013).	Threat or response	Information about where Prof. Quinn lived was shared online and he had to flee from his home.
Swatting	Derogation Threat of physical harm	The act of making fraudulent 911 calls using Caller ID spoofing technology with the aim of making it appear as though the targeted victim is in danger and results in armed authorities responding to the target's address with weapons drawn (Enzweiler, 2002).	Threat or response	Rep. Clark was swatted as a result of her work advocating for Zoe Quinn and Brianna Wu in Gamergate.
Trolling	Derogation	The act of being intentionally "antagonistic online, usually for amusement's sake" (Hardaker, 2013).	Threat or response	Many focal actors were targets of cybermobs that trolled them online.
Online petition	Social support Collective action	A petition signed online either be in support or against an individual or group	Threat or response	A petition was created on Change.org to fire the Mayor who derogated Michelle Obama.
Listicles	Derogation	Articles that are in the form of a list or articles that combine lists of things (Potthast, et al. 2016).	Threat or response	Many focal actors in the stories appear in online lists, such as "Top 10 Shamings of the Internet."
Online shaming	Derogation	The act of publicly shaming an individual or individuals through social media and other online applications	Threat or response	Several focal actors were targets of online shaming, e.g., Justine Sacco became a target after she tweeted ""Going to Africa. Hope I don't get AIDS. Just kidding. I'm white!"
Brigading/ Blamming	Derogation Collective action	This is when a group of people get together to down vote the same thing, whether is a person or a group of people representing a dissenting ideology	Threat or response	When "Beat up Anita Sarkeesian" game was uploaded on newsground.com, users "176lamed" the game, i.e. gave it an average score between 0-1 on a 5-pt scale, which caused the game to be removed.
Hashtag Activism	Derogation Collective action	The use of hashtags on social media to support a cause	Threat or response	Many stories involved social media users sharing "Fire" hashtags in campaigns to get the actors fired from their jobs. #MeToo and #BlackLivesMatter were hashtag activism campaigns.
Scrubbing	Concealment	A reputation management action where an attempt is made to hide or downplay a threatened identity, or tainted image	Response	Lindsay Stone used services from reputation.com to help her scrub her digital footprint Ashley Judd hires people to scrub her social media profiles
Deleting or Deactivating	Concealment	An action to delete or deactivate an online account or to delete content	Response	Many focal actors attempted to delete identity threatening content by deleting tweets or posts, or by deleting or deactivating their accounts entirely.

Appendix B: Interview Guide for Direct Targets of Identity Threat

The Role of IS in Shaping Identity Threats, Responses, and Outcomes

Interview Guide[34]

The following questions are the types of questions that will be asked during the interview. We are providing them ahead of time so can reflect on them before we talk.

In this interview, I will ask you questions about_____ (***a description of the experience/story***).

1. I have read about your experience from various sources but can you please describe it in your own words?
   a. [I'd like to summarize it as I read it and ask if this is how you remember. Is there anything missing? Something you would like to add?]
2. How did the initial actions or statements pose a threat to your identity, i.e., who you are, or how you perceive yourself to be?
3. How did the nature of the social media play a role in the threat you experienced? How might your experience have differed in the absence of social media?
4. At what point did you decide that you must respond or react in some way? Why?
5. How did you respond to the perceived threat? Why?
6. Other than your above response, were there other ways you thought to react or respond? Please describe these. Why did you not respond in these ways?
7. How has the experience changed the way you engage with others online or through social media?
8. How has the experience affected the way you view your identity (who you are and/or how people perceive who you are)?
9. Why do you think people engage in controversial behaviors on social media, such as cyberbullying, online shaming, online lynch mobs, etc.?
10. What suggestions do you have for others who may inadvertently or intentionally perpetrate threats on social media, and to others who may experience similar types of threats?
11. If you had any suggestions or recommendations that you would give to others who are the perpetrators of these types of threats, what would you tell them?

[34] This interview guide will be modified as needed for the interviewees.

IV. Conclusions

The motivation for this dissertation arose from frequent stories of online identity threats and responses. A review of the IS literature on ICT-mediated identity threats and coping responses found that most studies focus on how new IS implementations pose identity threats to employees in the workplace (e.g., Bala & Venkatesh, 2015). This happens when the employees feel that their role has changed due to the new implementation and, thus, they use various strategies to cope with their changed environment (Nach & Lejeune, 2010). The identity threat literature, however, suggests that there is more to the identity threat and coping response process (ITARP). Hence, there is paucity in understanding the role of ICTs in identity threat and ITARP dynamics, which necessitated this dissertation study. Essay 1 specifically focused on ICT-mediated identity threats by examining the characteristics of ICTs that make it possible for identity threats to occur, the identity threat mechanisms that these characteristics enable and the identity threats that result from these. Essay 2 was a mixed-methods study that examined the process by which ICT-enabled ITARP takes place and sought to identify patterns in the cycle over time using a process-based research approach. I provide more detailed summaries of each essay next.

Essay 1

In Essay 1, I conducted an exploratory study into ICT-mediated identity threats. The study combined a review of literature on identity threats conducted in an ICT environment, with a qualitative analysis of interviews with a convenience sample of 17 individuals. The interviews inquired about their experiences with ICT-mediated identity threats. A literature survey identified 20 studies that specifically focused on identity threats that are perpetrated via ICT media. With the increased usage of ICTs, including social and digital media, it is inevitable that

there will continue to be identity threats prompted via this media. To date, some of these identity threats have been so severe that they have caused people to flee from their homes or commit suicide. In a qualitative analysis of the interview data, I identified ICT-mediated mechanisms arising from characteristics of ICTs that enable identity threats in the ICT environment.

Essay 2

In my second essay, I conducted a mixed-methods study utilizing event sequence-cluster analysis to examine 50 stories of ICT-enabled ITARP process, which I collected from online sources. I used a keyword search for stories that had gone viral within the last 10 years and which specifically had ICT-mediated ITARP present. I then conducted an event sequence analysis-cluster analysis to code the sequence of actions following an identity threat, and then ran a cluster analysis to determine if there was any pattern in the sequences. From this analysis, I identified four distinct clusters: 1) apologies and remembrances; 2) penalty, more penalties, and perhaps policy; 3) flame war; and 4) call to action. Although the pattern of actions in most of the stories began in the same way, as the stories progressed, there were distinct patterns of ITARP actions that differentiated these four ICT-mediated ITARPs. I followed this analysis with interviews of six individuals who had been involved in the stories to gain deeper insights into the sequence of events involved in the ICT-mediated ITARP cycle.

As a whole, this dissertation contributes to the IS literature through these two essays by examining the role of ICTs in the ITARP cycle and studying this phenomenon as a *process* in Essay 2. One of the findings in my dissertation is that targets of identity threat in ICT-mediated environments adopt multiple responses to cope with the threat, for example, combining emotion-focused responses with problem-focused responses and cognitive responses. Additionally, my study further contributes to the ITARP literature by revealing, in ICT-mediated contexts, there

are multiple layers of focal actors besides the original source individual/group and the targeted individual/group. ICT-enabled mechanisms serve to extend identity threats to not just other members of the targeted individuals' social groups, but others in the larger social space, including those who sympathize or side with the source or target, social media actors and other media actors. Finally, many of the studies that focus on this phenomenon analyze it as a linear process. However, findings from my study suggest that the ICT-mediated ITARP dynamic is usually cyclical in that a target's chosen coping response often serves to become a source of identity threat to the original source actor or those sympathetic to the source actor, creating feedback loops in the ICT-mediated ITARP cycle. Overall, my dissertation study contributes to a deeper understanding of the role of ICTs in shaping identity threats and how ICT-mediated ITARP unfolds over time. Findings can help pave the path toward interventions and solutions that can prevent, reduce, or eliminate the harm that key actors experience from the ICT-mediated ITARP cycle.

References

Bala, H., & Venkatesh, V. (2015). Adaptation to information technology: A holistic nomological network from implementation to job outcomes. *Management Science*, *62*(1), 156-179.

Nach, H., & Lejeune, A. (2010). Coping with information technology challenges to identity: A theoretical framework. *Computers in Human Behavior*, *26*(4), 618-629.

Appendix: Research Compliance Protocol Letter

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

June 22, 2017

MEMORANDUM

TO:	Mary Macharia Christina Serrano Rajiv Sabherwal
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol #:	17-06-747
Protocol Title:	*The Role of IS in Shaping Identity Threats, Responses, and Outcomes*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 06/22/2017 Expiration Date: 06/21/2018

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 60 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

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UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

May 30, 2018

MEMORANDUM

TO:	Mary Macharia Christina Serrano Rajiv Sabherwal
FROM:	Ro Windwalker IRB Coordinator
RE:	EXEMPT PROJECT CONTINUATION & MODIFICATION
IRB Protocol #:	17-06-747
Protocol Title:	*The Role of IS in Shaping Identity Threats, Responses, and Outcomes*
Review Type:	☒ EXEMPT
New Approval Date:	05/24/2018

Your request to extend and modify the referenced protocol has been approved by the IRB. We will no longer be requiring continuing reviews for exempt protocols.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.