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Editors' Note

Dear Readers,

Welcome to Volume 5, Number 1 of #ISOJ. As the International Symposium on Online Journalism celebrate its 16th year, the #ISOJ journal also celebrates its fifth year of publication.

This volume highlights the major transitions underway in the journalistic practice from gatekeeping practices to the influence of digital platforms on content and journalistic routines. The research in this year's volume also explores the impact of social media on the profession.

We hope you enjoy this latest volume of #ISOJ, send us your comments or questions and help us spread the word about this innovative publication, especially among your friends in social media.

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Journal Details

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#ISOJ The Journal of the International Symposium on Online Journalism is an international journal devoted to advancing the scholarship in the area of journalism and innovative technologies. Articles included in the journal are based on original research, methodologies relevant to the study of journalism and innovative technologies (online, tablets, mobile platforms, etc.), critical syntheses of research and theoretical perspectives on journalism today. The journal maintains a social scientific and broad behavioral focus.

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Gold Medals, Black Twitter, and Not-So-Good Hair: Framing the Gabby Douglas Controversy

Kathleen McElroy

According to the media, black women used Twitter during the 2012 London Games to criticize the hair of Gabby Douglas as the gymnast became a pioneering gold medalist. This study outlines how Black Twitter was misinterpreted as the controversy reached mainstream media. The research identifies three frames that emerged from coverage: Black female commentators as authoritative arbiters; the supposed hair critics as the wrong class of black women; and Douglas as an innocent child whose salvation was to move away from blackness.

Twitter was part of the story of the 2012 London Olympics, with athletes making news with their tweets and the news media treating social media analytics as another form of competition (Haughney, 2012; Timpane, 2012; Ward, 2012; Wharton, 2012;). Still, an unexpected spotlight shone on Black Twitter, a virtual community of African-Americans and the content they produce and share on the microblogging site (Brock, 2012; Manjoo, 2010). Black Twitter became part of the narrative about gymnast Gabrielle Douglas, the 16-year-old African American who helped lead the United States to victory in the women's team competition then surprisingly won the individual all-around gold, the first American and first black female to do so in one Olympics.

Watching her individual victory on tape delay afforded Black America the opportunity to use "a real-time medium (Twitter) to share spontaneous thoughts about a non-scripted event where most of us already know the outcome," an Ebony columnist wrote. "Aside from some commentary about her hair, the 'Tweeting About Gabby Douglas' experience was also notable because it was almost completely devoid of Twitter's lifeblood, snark" (Young, 2012). Casual observation suggested that positive, celebratory tweets far outnumbered negative posts (Charlton, 2012; Ruth, 2012; Young, 2012). But America soon learned that black women on Twitter had criticized Douglas' hair, one of the Olympics' top 10 Twitter controversies (Couch, 2012). Coverage of the controversy bewildered whites, who claimed they had not given any thought to Douglas' hair. It disheartened many African Americans and placed the gymnast in the middle of a cultural struggle older than the modern Olympics—the trials and tribulations of black women's hair.

Five years after Don Imus' 2007 "nappy-headed hos" quip about the Rutgers women's basketball team, this conflation of the highest-rated Olympics, black-on-black criticism, and new media captivated the country. As a Washington Post column noted: "Thanks to social media and Douglas's stunning achievement ... the family spat has spilled into a public forum, generating coverage from news organizations around the world" (Williams, 2012). Two days after Douglas had won the individual gold, The Los Angeles Times asked, "Why are people being mean to Gabby Douglas?" (La Tellier, 2012).

This framing study analyzed how that question became national news and who in the media was "being mean" to whom. Framing identifies the ways media organize texts around shared, salient principles (Reese, 2001). The frames emerging in news articles and in commentary during the hair controversy represent a confluence of longstanding racial, gendered, and class issues that were given new potency during the London Games' multimediated popularity. This study addressed the significance of these issues through the theoretical lens of intersectionality, the examination of multiple, simultaneous modes of oppression (Nielsen, 2011). As theorized by Collins (2007), it includes black women's resistance to intersecting oppressions like racism and sexism.

A qualitative textual analysis identified the frames. It examined 56 blog posts, articles, and commentaries written by bloggers, reporters, columnists, and academics; their work appeared in sports and on editorial pages, and on ethnic, sports, and women's websites. In a week of coverage in early August, commentators across racial lines and across media overwhelmingly wondered: "Are some Black people so insecure with their place in the world that a tied back ponytail can set them into a tailspin?" (Burke, 2012).

Black Twitter

African Americans were active Twitter users throughout the London Games. The tape-delay of Douglas' all-around victory "became a victory lap, the type of collective celebration Black Twitter has never really experienced" (Young, 2012). The Busted Coverage blog chose the top NSFW ("not suitable for work") Olympics tweets posted daily by black men.

Blacks comprise 13% of the United States population but a quarter of American Twitter users (Smith, 2011; Hargittai & Litt, 2011, Manjoo, 2010). One in 10 African-Americans on the web visits Twitter daily, double the rate of Latinos and nearly four times that of whites (Smith, 2011, p. 3). But African-Americans using Twitter is not the same as Black Twitter. Brock (2012) explains that Black Twitter can be understood "as a user-generated source of culturally relevant online content, combining social network elements and broadcast principles to share information" (p. 530). Because of ethnically comic discourse like that on Busted Coverage, non-blacks in mainstream media became fascinated with Black Twitter (Heffernan, 2011; Manjoo, 2010; Sicha, 2009). The term Black Twitter was coined in 2009 by a white writer on The Awl blog, who admitted: "I cannot keep quiet about my obsession with Late Night Black People Twitter, an obsession I know some of you other white people share, because it is awesome" (Sicha,

2009). A year later, a feature on Slate gave Black Twitter widespread exposure (Manjoo, 2010).

Brock (2012) has best conceptualized how Black Twitter functions as a public space and subject of the white gaze. Employing cultural technocultural discourse analysis, which focuses on "how culture shapes technologies" (p. 531), Brock considers Black Twitter a social public, "a community constructed through their use of social media by outsiders and insides alike" (p. 530). Black Twitter, as a cultural entity, "coalesced through the recognition of the unique practices of the group by in-group and out-group observers alike" (p. 545). The hallmark of Black Twitter is culturally oriented conversations organized by hashtags (e.g., #tweetingwhileblack), which are among Twitter's most popular trending topics (Heffernan, 2011; Manjoo 2010,).

Hermida (2010) heralds Twitter "as a system that alerts journalists to trends or issues hovering under the news radar" and "a collective intelligence system that provides early warnings about trends, people and news" (p. 302). In that vein, Brock (2012) is particularly interested in whether Black Twitter is an appropriate cultural outlet. Because (Manjoo (2010) emphasized hashtags dedicated to comedic and celebrity themes, he was criticized for focusing only on a "subset" of Black Twitter (Higgin, 2010; Talbert, 2012).

In the way Byrne (2007) connects African-American interactivity on the web to a long history of physical social networking, some experts emphasize that Twitter allows African-Americans to organize their fictive relationships online, relationships not built of kin but of shared circumstances (Talbert, 2012). The retweet is similar "to the oral tradition of call and response, as well as passing messages through the community via word of mouth" (Talbert, 2012). Neal, Clarke, and Williams (2013) call social media the default medium for communication within the black community and see Twitter providing "the steady bass beat … with more portability and immediacy than ever before."

In spite of Black Twitter's accessibility, Nunley (2011) contends blacks today remain hesitant to speak "frankly in front of Whites or in the public sphere" (p. 2), preferring to steer conversations to such "hush harbors"—safe, black-only rhetorical spaces like barbershops. In asking "Are Twitter Trends the New Barbershop," Higgin notes in his blog that "within the context of class struggle," memes and hashtags that seem silly on the surface, like "#thingswesaytopolice" and "#blackmamaquotes," function as "a coping mechanism and shared acknowledgment of political inequality, however slight or unconscious that intent may be" (2010). Twitter encourages performativity and creativity (Brock, 2012, p. 537). Florini (2013) asserts that "signifyin' "—an African-American rhetorical strategy that often includes irony and indirectness—"serves as a powerful resource for the performance of Black cultural identity on Twitter" (p. 223).

Higgin (2010) concludes that Twitter "seems to be fundamentally transforming the traditional safe physical space of the hush harbor," making it suitable for scrutiny as a site of legitimate and racialized discourse. Crucially, this publicness takes place without Black Twitter showing any concern "with the mainstream gaze" (Brock, 2012, p. 534). Yet

Brock emphasizes that "Black Twitter is best understood as a 'public group of specific Twitter users' rather than a 'Black online public' "—that is, attributes of the group do not define that group (p. 545). While he did not cite a situation in which such a distinction had been lost, the Douglas hair controversy would provide such an example.

Intersectionality

Decades of research have outlined how mediated sports maintain systems of domination through hegemonic practices. To Gramsci (1971), dominance is maintained not just through force but also with ideology that is deemed natural and logical by cultural productions like media and sports. For instance, sports media perpetuate black athletic superiority and American meritocracy (see Hardin, Dodd, Chance, & Walsdorf, 2004; Hoberman, 1997). They maintain hetero-normative patriarchy through magazine coverage (Davis, 1997), journalism textbooks (Hardin, Dodd, & Lauffer, 2006), and coverage of athletes (see Hardin, Kuehn, Jones, Genovese, & Balaji, 2009; Eastman & Billings, 2000; Trujillo, 1991). But intersectionality gives dimension to hegemony by articulating "both/and perspectives" rather than "either/or perspectives" to understand where individuals can be situation in multiple systems of oppression (Cooky, Wachs, Messner, & Dworkin, 2010, p.144). Given the communication field's focus on group identity, Nielsen (2011) urges that more of its research adopt intersectional analysis:

Because intersectionality describes how marginalization is magnified where multiple forms of exclusion meet, studying only one form of exclusion, for example, gender, fails to engage women who also face other forms of exclusion (p. 7).

Intersectionality analyzes "signifiers of exclusion and domination work" in terms like race, class, and gender (Meyers, 2004, p. 96). Black feminist theorists see black women at the intersection of cultural and political structures of oppression (Collins, 2000; Crenshaw, 1991; Smith, 1998). But Smith (1998) and Byfield (2014) find this reading of intersectionality veering too closely to essentialism by an insistence on monolithic black female experience, especially when issues of class within the black community can be points of departure, not solidarity (Collins, 1997; Collins, 2000; Smith 1998). Still Smith (1998) believes reading discourse through intersectional analysis "can illuminate the diverse ways in which relations of domination and subordination are produced" (p. xxiii). Intersectionality explains how the mainstream and ethnic press employed different frames when Sonia Sotomayor was nominated for the Supreme Court (Nielsen, 2013) and the ways blacks were unfavorably framed by race, gender, and class during coverage of Atlanta's "Freaknik" (Meyers, 2004).

Intersectional analysis is particularly useful for examining black female athletes, who face gendered and racialized stereotypes and often are portrayed in media and sports media "as both hyper-sexualized and less feminine" (Cooky, Wachs, Messner, & Dworkin, 2010, p. 143). Focusing solely on media representations of Douglas during the 2012 Summer Games, Carter-Francique (2014) employed intersectionality in finding that Douglas' sacrifices were framed as a journey of empowerment, but her nickname, the Flying Squirrel, was exploitative, and the hair coverage centered on standards of beauty

(2014).

In 2007, talk-show host Don Imus called the Rutgers women's basketball team "nappy-headed hos" after it lost the N.C.A.A. championship game. Intersectionality uncovers the roots of Imus's racist, sexist and elitist description, as well as the media response to it. Male voices were preferred to criticize Imus, and the coverage chose to cast the Rutgers team as defenders of middle-class values to separate themselves from the underclass women with whom they had been compared (Cooky, Wachs, Messner, & Dworkin, 2010).

Black women's hair.
Because of their hair texture, facial features, body shape, and skin tone, black women "are routinely defined by a specific set of grotesque caricatures that are reductive, inaccurate and unfair" (Jones & Shorter-Gooden, 2003, p. 3).
The Huffington Post noted that "Gabby's hair is the latest mane to be caught in the crossfire" of this battle in which "kinky haired women are criticizing those who don't embrace their natural texture. Women with relaxed hair are firing back to desperately defend their straightened locks" (Marques, 2012).

The 21st century black woman's choice of hairstyle is still considered a political, rather than aesthetic, statement (Prince, 2009). Her hair, seen during athletic competition or a run to the supermarket, is subject to public critique: "The hair on a Black woman's head is treated as if it is a separate entity from the rest of her body—she and her family treat it that way, and other Black people treat it that way" (Prince, 2009, p. 15). Good Hair, the 2009 documentary by comedian Chris Rock, gently mocked the relationship between black women and their hair; it was cited in seven analyzed articles, while four mentioned the Imus incident. During the Olympics, ESPN W featured hurdler Lolo Jones discussing the difficulties of balancing black hair maintenance and exercise (Andrews, 2012). A later ESPN W column criticized black women on social media for broaching the same subject about Douglas, calling them no better than Imus (Hill, 2012).

Framing Theory

The news media remain significant in shaping, usually stereotypically, public consciousness about race (Campbell, LeDuff, Jenkins, & Brown, 2012; Entman & Rojecki, 2001; Gilens, 1996; Martindale, 1986). Whether explicit or implicit, racist or at least stereotypical discourse is often spread through frames that resonate with media audiences (Entman & Rojecki, 2001). Frames are "organizing principles that are socially shared and persistent over time, that work symbolically to meaningfully structure the social world" (Reese, 2001, p. 11, emphasis in original). Frames construct meaning through "emphasis, interpretation, and exclusion" (Carragee & Roefs, 2004, p. 217). To Hertog and McLeod (2001), frames are a cultural phenomenon with meaning beyond the text. Thus frames are more than themes and topics; they are crucial to identifying how power and ideology use texts to construct a social reality (Carragee & Roefs, 2004; Durham, 2001; Entman, 2010; Gitlin, 1980).

Framing identifies the ways mediated sports function to uphold dominant systems in

society (Rowe, 2004). Frames of stereotypes reinforce racial ideology in sports and about sports figures on and off the court (Grainger, Newman, & Andrews, 2006). In 2007, the media used frames to shift blame from Imus and toward hip-hop (Cole & Jenkins, 2010) and to maintain a patriarchal, elitist perspective of the Rutgers controversy (Cooky, Wachs, Messner, & Dworkin, 2010). In 2012, the Gabby Douglas frames reveal how sports can set the stage for cultural meaning far from Olympic arenas.

Methodology

The coverage of the Douglas controversy was examined though a textual analysis of print articles and columns, blog posts, and multimedia items from August 1, 2012, at the conclusion of the team gymnastics competition, through August 9, 2012, just after the end of Douglas' Olympic competition. The articles, columns, multimedia and blog posts comprised the units of analysis, and they were read inductively and repeatedly to come up with the frames (Glaser & Strauss, 1967). Previous research in intersectionality and framing has found textual analysis an appropriate method (Cooky, Wachs, Messner, & Dworkin, 2010; Meyers, 2007; Nielsen, 2013).

Reading content as text uncovers "the connotative as well as denotative meanings of language and imagery—what is suggested generally about culture, as well as what is literally depicted with regard to the news subject" (Kitch, 2007, p. 118). Textual analysis also considers "literary and visual constructs, employing symbolic means, shaped by rules, conventions and traditions intrinsic to the use of language in its widest sense" (Hall, 1975, p. 17). This kind of analysis, in which ideas and ideologies are articulated and elaborated, goes beyond manifest presentation of the news and focuses on its role in making news "meaningful" (Hall, 1975, p. 21).

The 56 pieces represented a range of publications and sites. Black-oriented sites included Ebony, Huffington Post's Black Voices, and the Grio (associated with NBC). Women's sites included Jezebel, Ms., and Stroller Derby. Sports sites included ESPN W, Yahoo Sports, and Bleacher Report. A few publications spanned two categories, including Essence, which caters to black women, and ESPN W, which focuses on women's sports. General-interest mainstream sites included CNN, NPR, Time, The New York Times, Los Angeles Times, USA Today, and The Washington Post, which treated Douglas as a local celebrity because she grew up in Virginia. No coverage was found in Sports Illustrated or the main ESPN site. All but five pieces were opinionated. The racial and gender breakdown of the writers: 29 black women (including four academics), 15 white women, seven black men, two white men, and one Latino. An Associated Press reporter and a Rumor and Rants blogger could not be identified.

In addition, roughly 1,500 tweets were examined on topsy.com under searches for "gabby douglas," "hair," "olympics," "douglas," and related terms and also at twitter.com. The research confirmed the existence of tweets and Twitter accounts. They were analyzed to gauge Black Twitter's response to Douglas. One month after the Games, fewer than 100 negative tweets about Douglas were found among the 1,500 analyzed.

Timeline of a Controversy

In analyzing how the little-noticed arrests of Philadelphia activists made their way into local mainstream media, Anderson (2010) pointed to patterns of news circulation in which certain websites in specific communities of interest served as bridges to "larger, more diffused communities" (p. 289). In the diffusion of news regarding the hair controversy, race and gender propelled the coverage from a niche blog to the most prominent media companies. On August 1, Sporty Afros (a blog about black women, their hair, and exercise) posted a column written by running trainer Monisha Randolph (2012). She noticed that black women on Facebook and Twitter had complained that Douglas' hair was not "kept," or textually neat, during competition. She paraphrased three unidentified tweets about Douglas as evidence: "She needs some gel and a brush," "Someone needs to give her a hair intervention," and "She has to represent." Randolph asked, "When in history did it become a hobby for Black women to heavily criticize one another?" Later that day, a black female writer at the feminist site Jezebel cited Sporty Afros, the first of nine references to the blog among the analyzed pieces (Stewart, 2012). Jezebel included screen shots of five Tweets, including one by C. Renee posted on July 27: "on another note, gabby douglas gotta do something with this hair! these clips and this brown gel residue aint it!" Jezebel also included five tweets attacking the hair critics. That evening, another black woman posted a column on Huffington Post's Black Voices that included images of negative tweets, including the one by C. Renee (Marques, 2012). Her tweet was mentioned or shown in nine different articles or commentaries.

On August 2, the coverage spread to 11 websites and programs, including BET, Yahoo:Shine, NPR, and Bleacher Report. Michael Eric Dyson (2012) told his MSNBC audience that "most people in the African-American community have taken to Twitter to insult Gabby Douglas' hair." The Daily Beast interviewed 22-year-old Latisha Jenkins, who said she loved how Douglas was "doing her thing and winning. But I just hate the way her hair looks with all those pins and gel. I wish someone could have helped her make it look better since she's being seen all over the world. She representing for black women everywhere" (Samuels, 2012). Four other blogs later criticized Jenkins, with The Wall Street Journal writing that she "went on to fuss that Douglas is representing 'black women everywhere' " (Binkley, 2012). The eight tweets first appearing in The Huffington Post, Jezebel, and Bleacher Report were mentioned by other publications, including The Washington Post and The New York Times.

USA Today, The Los Angeles Times, and The Washington Post were among the 12 publications joining the coverage on August 3. Serena Williams told USA Today that the hair debate was "ridiculous" (Whitehead, 2012, para. 2). On August 5, Douglas told The Associated Press: "I don't know where this is coming from. What's wrong with my hair? I'm like, 'I just made history and people are focused on my hair?'... I'm going to wear my hair like this during beam and bar finals. You might as well just stop talking about it" (2012). On August 6, the Fashionista blog published an exclusive interview with Douglas' mother, Natalie Hawkins, in which she revealed: "I started hearing about (her hair) earlier this year actually. … We put all this effort into getting her hair done and they still didn't like it!" (Wischhover, 2012). On August 7, Douglas stumbled in her two individual events,

and The Washington Post and the Grio wondered if the talk about her hair had affected her (Jenkins, 2012; Johnson, 2012). On August 8, when a New York Times blog recycled a Bleacher Report tweet and The Chicago Sun-Times ran its second hair column, T.F. Charlton (2012) criticized the news media, not black women. Writing for Ebony, she questioned whether coverage that started with Sporty Afros reflected "an actual trend, or confirmation bias creating a news story out of a few isolated fools being mean in the internet" (2012). The Huffington Post's Black Voices then linked to Ebony and asked in its headline: "How Did Olympic History Turn Into A Hair Debate?"

Framing the Hair Controversy

Three frames emerged from the Gabby Douglas hair coverage. First, black female commentators framed themselves as authoritative arbiters in the controversy, once stifled by their hair choices but now liberated and uniquely qualified to scold black women to get in line. While most white women sought solidarity, male and white female sports journalists portrayed themselves as baffled yet objective observers. Second, the hair critics were universally framed as being the wrong class of black women: hateful, ignorant, and/or unhealthy. In the third frame, Douglas was an innocent child and another black athlete who "can't win for losing." Her only salvation, this frame suggested, was to move away from blackness.

"How low can we sink?":

The first frame illustrated how black women "owned" the hair controversy. The Douglas commentary provided a space where black women, their culture, and the jargon about their hair dominated both sides of the conversation: as speaker and audience. Black female writers—in fashion, ethnic blogs, in sports, in academia—framed themselves as authorities in the hair controversy because of their personal experiences and liberation from dealing with black hair. Many used first person, as in "royal we" and "we" as family: "We need to stop tearing down black women for how we look," "What is wrong with us" and "How low can we sink?" Rochelle Riley's column in the Detroit Free Press and USA Today demanded: "Stop it … We will not ruin the greatest moment in the life of a 16-year-old with pettiness about how she looks" (2012). CNN instructed: "We should all aspire to lift our heads so high" (Miles, 2012). The black female commentators spoke of their "own painful hair issues" and "troubled terrain" of having kinky hair. Mitchell (2012) in The Chicago Sun-Times described her hair as "a curse that has been handed down through the generations" (para. 8).

Yet the black women ultimately claimed that they, like the oft-cited singer India.Arie, are not their hair: "My hair, in a natural state, does not block thoughts or slow intelligence or make me a worse writer" (Riley, 2012). They portrayed themselves and women with natural hair as emancipated. Many articles noted that the week Douglas won gold, Oprah Winfrey had appeared on the cover of her magazine with natural hair for the first time, giving explicit approval to the style. Another key voice in the natural camp was Dominique Dawes, the black gymnast who won a team gold in 1996. She advised black women "to go natural and stop relaxing your children's hair, too. … It was liberating and

empowering for me" (Whitlock, 2012).

On the other hand, black female commentators said that they understood the issue of black women needing to "represent." As The Root's McEwen (2012) admitted: "It's not healthy, and it's not fair, but let's not pretend like we don't know where it comes from." She explained the insecurities that would cause "my (usually very enlightened) mother to act like a wrinkled shirt is the end of the world":

> She doesn't want me to go out in the world (read: in front of white people) looking messy. Not only does she want me to perform well, she wants me to look good doing it—to leave no room for the criticism that she feared growing up in the 1960's.

La Bennett (2012) was once "stunned" by a photograph of Coretta Scott King marching with a "clear plastic shower cap" over her hair: "But King knew that she represented all black women—a surrogate First Lady long before Michelle Obama came along."

Writers who were not black women wrote that they had not noticed Douglas' hair. Black male columnists expressed impatience (Fountain, 2012; Littal, 2012; Whitlock, 2012). As Fountain put it: "Here's one black male who was left scratching his shiny bald head, wondering why in hell, after a young woman who had persevered and trained for years to rise to world-class status, anyone—least of all anyone black—would give a rat's fart what her hair looked like" (2012).

Interestingly, white women in sports joined black men in finding the criticism "a ludicrous, racially loaded conversation," "ludicrous" and "silly," a perspective perhaps reflective of patriarchy's pull within sports. But most white female commentators sought feminist solidarity. Goldstein (2012) on the Washington Post blog "She the People" wrote: "Though I am white and Jewish, my kinky fuzz sprouts from my father's Lithuanian side of the family, and I feel a deep extra-ethnic kinship with anyone who struggles with unruly curls." The Wall Street Journal contended: "Once again, people set aside a woman's accomplishments to criticize her looks. And look who's doing much of the criticizing: other women" (Binkley, 2012). As Stroller Derby's Castiglia put it: "I don't know what it's like to be a black woman facing the pressure to have 'good hair,' I do know what it's like to be a white woman who is not blonde or thin, so I can relate to living outside of the beauty standard" (2012). But white women admitted being surprised by the criticism. Right-winger Debbie Schlussel wrote polemically: "It looks fine to me, but maybe it's another one of those fictional 'it's a Black thing—you wouldn't understand' moments" (2012). But black women seized their opportunity to attempt to articulate their authentic, everyday struggles and make them part of the national discourse on oppression (Collins, 2000). Especially because the topic was their hair.

"All y'all got is weaves and envy":

The second frame articulated a divide between black women. Commentary described the black women who "attacked" Douglas as "haters." More telling, it overwhelmingly

joined the Black Twitter backlash in framing the criticism as the byproduct of the underachieving priorities of women with weaves and chemically straightened hair—a lower-class, lesser regarded class of woman. Feminist Jezebel and Ms. Magazine and right-wing Schlussel indicted black women for being vain, frivolous, and trying to be white by having "European" hair. Jezebel applauded tweets that were derogatory toward black women, including: "Talking about Gabby Douglas' hair? At least it's hers. You got yours from one of Britain's Equestrian horses," and "Gabby Douglas got real hair and real Olympic. All y'all got is weaves and envy" (Stewart, 2012).

The women who complained about Douglas' hair were accused of being unhealthy and having high blood pressure and diabetes. ESPN, Sporty Afro, The Philadelphia Inquirer, and Fox Sports linked the high obesity rate for black women to their hair choices, adding some black women "may skip working out to avoid messing up their styled hair" (Hill, 2012). A black female comedian added: "It's hard to keep up euro-style hair when you do more than sit behind a desk or at home on your ass all day tweeting about what other black women are doing while they are out there actually doing it" (Castiglia, 2012). Two black men lamented black women's "obsession" with European, straightened hair, their "addiction to hairweave," and having their self-esteem "tied up in their hair or the overpriced weave dangling from their heads." Fountain (2012) compared black women's "hairweave and nails" to "those foul-mouthed, bed-hopping, brawling sisters on some reality TV shows, who give black women a bad name."

Even in a space where privileged black women were heard, "certain assumed qualities" attached to black women were used to justify their oppression (Collins, 2000, p. 5.). Instead of solidarity "with their working-class sisters," as Collins put it, the black middle class chose their "newly acquired positions as theirs alone and thus perpetuate working class-Black women's subordination" (2000, p. 68).

"Far too young" and "can't win for losing":

Douglas, 16, was framed as an innocent girl. Black female commentators outside of sports maternally described her as "a child," "a young child" and "a little girl." In this frame, Douglas' athleticism, despite being the reason the controversy existed, was secondary to her innocence. Commentators referred to her in the youthful, gendered language of gymnastics, calling her a "sweetheart," "darling," and "doll." The Washington Post transformed her kinky hair to "golden girl's tresses."

Douglas was "far too young to be exposed to that kind of hate" (Brown, 2012). The criticism was unfair because of what it does to young black girls like Douglas, who face "multiple types of censure." Drummond (2012) asked: "What message does the criticism send to other little black girls with similar hair texture?" Douglas was likened to the teenaged Venus and Serena Williams, who "endured similar rebuffs for beaded braids, a look that did not conform to the predominantly white world of women's tennis" (LaBennett, 2012). In fact, black female athletes "can't win for losing" (Samuels, 2012). Commentators noted that gold-medalist sprinter Sanya Richards-Ross was mocked on Twitter for her long braided hair (with less outcry presumably because she competes in

a sport dominated by black women and is 28 years old). One athlete complained: “There aren’t many options for a black woman” in gymnastics. “And let’s be clear—even if she cut her hair off and went bald, black people wouldn’t be satisfied” (Samuels, 2012). The controversy “perfectly illustrates the problem for black women: They can’t win no matter what they do with their hair,” Whitlock wrote, adding, “Gabby Douglas looked like the cute little girl everyone would want as their daughter or little sister and she was still the butt of jokes” (2012). Douglas represented “a history of hurts and wrongs” (Fields, 2012).

The frame’s solution was to move Douglas away from blackness. While LaBennett (2012) hoped that Douglas “represents a new generation of black girls, not just Olympic champions,” most commentators insisted that Douglas be seen not as an African-American but as American. Her blackness was replaced with patriotic and Olympic hues; “representing” took on a national, not racially gendered, meaning. The Wall Street Journal wrote that “if Douglas is representing anyone other than herself, it’s as an American athlete who since March has emerged as one of the greatest gymnasts alive” (Binkley, 2012). Others contended that she was “representing America, not just one single group” and “is red, white and blue.” After Douglas faltered in the uneven bars and balance beam, Sally Jenkins, the white Washington Post sports columnist, blamed “the racial narrative” as a factor affecting her performance. Jenkins (2012) stressed that “race in America is a story line that Douglas is part of—but it’s not her whole story”:

Douglas is black, her coach is Chinese. She’s living with a white family in Iowa, and her captain on the USA gymnastics team is Jewish and danced to a gold medal in the floor exercise to Hava Nagila. Douglas genuinely doesn’t see color—it’s not her first thought. Yet she was drilled incessantly with questions about being a woman of color in gymnastics.

Schlussel (2012) positioned the gymnast closer to white America: “The next time Black America throws around the racism word, remind them what they said about Gabby Douglas’ coif, while we were proud of her.” Yet Black America equally saw a benefit in moving away from race. A black male writer declared: “The time has now come when all women—and men—should be judged by the content of their character, not the texture of their hair” (Fountain, 2012).

Discussion and Conclusion

Race and media have long collided at the Olympics—praise for Jesse Owens, scorn for Tommie Smith and John Carlos. But this analysis of the Gabby Douglas hair coverage demonstrated how the construction of media content in the digital age shapes and distorts racial and gendered narratives in the twenty-first century. Television and sports journalists did not serve as eyewitnesses to the controversy; it unfolded from the ground up, from (allegedly) Black Twitter to blogs to traditional news media. Content was produced and shared by the audience, new media, and traditional outlets.

This study also illustrated that the Olympics remain a tangible source of national and cultural identity. The immediacy of digital media and deep roots of racial pride combined

to give black women a leading role in the Douglas coverage, demonstrating that online media represent a new forum for their empowerment (Collins, 2000, p. 285). The coverage was a reminder that while the traditional black press has lost visibility and influence, what has gained strength is a black-powered press, with young black women impacting The Huffington Post, Jezebel, and mainstream publications.

But in performing roles that intersectionality usually presumes for other groups, black women also were "instrumental in fostering other black women's oppression" (Collins, 2000, p. 68). The writers employed frames about themselves, the hair critics, and Douglas that revealed how intersectionality functions within multiple avenues of oppression. Despite Douglas' being crowned "America's Megawatt Sweetheart" by The New York Times (Macur, 2012), the global audience was reminded that black female athletes are subject to the limitations of race, gender, and mediated sports. Crucially, class was interjected in these narratives, with the hair critics framed as lower-class women who were ignorant, unhealthy, and vain. With black pride upstaged by black shame, African American commentators tacitly agreed with reactionary tweets that described the original complainers as "whores," "on welfare" and "broke." Black women with the authority to comment on the hair controversy pulled themselves away from the black women imagined to stand at the margins of society, in the process clarifying its boundaries (Collins, 2000, p. 70).

Individually and collectively, the frames further problematized African Americans, a chronic condition that social theorists have noted for more than a century. The problems of black women, rooted in oppressive systems of race, gender, and class, were framed as essentialist, exotic, and unsolvable, familiar ideas that resonated with a broader audience. Charlton (2012) lamented in Ebony that black commentary propagated "the image of dysfunctional, belligerent Black women that the media loves. In the understandable rush to defend Gabby from critics, we've overlooked that this narrative is being pushed by racist, sexist media that can't be trusted to report accurately on Black women's opinions on just about anything."

Thus the findings bring into question how mainstream media "read" Black Twitter. As Brock (2012) had predicted, the portrayal of Black Twitter as "representative of the entire Black community despite the heterogeneity of Black culture speaks to the power of American racial ideology's framing of Black identity as monoculture" (p. 546). Mainstream news media treated Black Twitter as legitimate, unified representation of black opinion without giving it the due diligence afforded to other sources. Traditional journalists gave Black Twitter the weight they do not give to reader comments, which they still do not trust (Loke, 2012; Nielsen, 2012). Black people complaining about Douglas' hair made hegemonic sense.

This study illustrates that Black Twitter, for better or worse, has emerged as a stakeholder in black discourse. It falls short as a reliable space for rhetorical discussion about the African-American experience when it is subjected to incomplete eavesdropping, as exemplified by the hair coverage. Just as journalists use Google searches as proof of a story's relevance, Black Twitter likely will be used again to take

the pulse of Black America. Black Twitter knows this all too well. On August 2, 2012, “Ise7enz” posted: “Just saw an article titled ‘In Defense of Gabby Douglas Hair’. Alright, Black Twitter. ’Fess up. What did y’all do this time?” The next day, “Graceishuman” tweeted: “Now this fake Gabby Douglas hair drama is on the LA Times *and* NPR? Media, you are fired. And I still blame Jezebel.”

References

Anderson, C. W. (2010). Journalistic networks and the diffusion of local news: The brief, happy news life of the "Francisville Four." *Political Communication*, 27(3), 289-309.

Andrews, A. (2012, July 24). Lolo Jones highlights hair-raising worry. ESPN W blog. Retrieved from: www.espn.go.com/espnw

Binkley, C. (2012, August 3). From hair to eternity. Heard on the Runway blog.*The Wall Street Journal.* Retrieved from www.wsj.com

Brock, A. (2012) From the Blackhand side: Twitter as a cultural conversation. *Journal of Broadcasting & Electronic Media*, 56(4), 529-549.

Brown, D. L. (2012, August 9). Keep your head up, Gabby Douglas. The Root blog. Retrieved from www.theroot.com

Burke, L. V. (2012, August 6). Gabby Douglas is not her hair. Politics 365 blog. Retrieved from: http://politic365.com

Byfield, N. P. (2014). Savage Portrayals: *Race, Media & the Central Park Jogger Story.* Philadelphia, PA: Temple University Press.

Byrne, D. N. (2007). Public discourse, community concerns, and civic engagement: Exploring black social networking traditions on BlackPlanet. com. *Journal of Computer Mediated Communication*, 13(1), 319-340.

Campbell, C. P., LeDuff, K. M., Jenkins, C. D., & Brown, R. A. (2012). *Race and news: Critical perspectives*. New York, NY: Routledge.

Carragee, K. M., & Roefs, W. (2004). The neglect of power in recent framing esearch. *Journal of Communication*, 54(2), 214-233.

Carter-Francique, A. R. (2014). "Re" Presenting "Gabby": Examining the digital media coverage of Gabrielle Douglas at the 2012 London Olympic Games. *International Journal of Sport Studies,* 4(9), 1080-1091.

Castiglia, C. (2012, August 3). Splitting hairs: Why gold medalist Gabby Douglas faces criticism about her 'do. Stroller Derby blog. Retrieved from blogs.babble.com

Charlton, T. F. (2012, August 8). The media's Gabby Douglas problem. Ebony. Retrieved from: www.ebony.com

Cole, H. J., & Jenkins, C. D. (2012). "Nappy-headed hos" Media framing, blame shifting and the controversy over Don Imus' pejorative language. In C. P. Campbell, K. M. LeDuff, C. D. Jenkins, & R. A. Brown (Eds.). *Race and news: Critical perspectives*. (pp. 177-198). New York, NY: Routledge

Collins, P. H. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment* [Kindle version]. New York, NY: Routledge.

Collins, P. H. (1997). Comment on Hekman's "Truth and method: Feminist standpoint theory

revisited": Where's the power? *Journal of Women in Culture and Society*, 1(2): 375-381.

Cooky, C., Wachs, F. L., Messner, M., & Dworkin, S. L. (2010). It's not about the game: Don Imus, race, class, gender and sexuality in contemporary media. *Sociology of Sport Journal*, 27(2), 139-159.

Couch, A. (2012, August 2). Olympics 2012: Top 10 Twitter controversies, From Hope Solo's NBC beef to Gabby Douglas' hair. *The Hollywood Reporter*. Retrieved from www.hollywoodreporter.com.

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241-1299.

Davis, L. R. (1997). *The swimsuit issue and sport: Hegemonic masculinity in Sports Illustrated*. Albany, NY: SUNY Press.

Drummond, T. (2012, August 6). Newsflash: It's not about the hair. *Oakland Tribune*. Retrieved from http://www.highbeam.com.

Durham, F. D. (2001). Breaching powerful boundaries: A postmodern critique of framing. In Reese, S. D., Gandy Jr., O. H., & Grant, A. E. (Eds.). Framing public life: *Perspectives on media and our understanding of the social world*. (pp. 123-136). Mahwah, N.J.: Lawrence Erlbaum.

Dyson, M. E., & Finney, K. (2012, August 2). *The Ed Show, with Ed Schultz. MSNBC*. Retrieved from www.lexisnexis.com.

Eastman S. T., & Billings, A. C. (2000). Sportscasting and sports reporting: The power of gender bias. J*ournal of Sport and Social Issues, 24(2)*: 192-213.

Entman, R. M. (2010). Framing media power. In D'Angelo, P., & Kuypers, J. A. (Eds.). Doing news framing analysis: *Empirical and theoretical perspectives*. (pp. 331-355). New York, NY: Routledge.

Entman, R. M., & Rojecki, A. (2001). *The black image in the white mind: Media and race in America*. Chicago, IL: University of Chicago Press.

Fields, M. (2012, August 2). If Gabby's got gold, why flip over her hair? NPR. Retrieved from: www.npr.com

Florini, S. (2013). Tweets, Tweeps, and Signifyin': Communication and Cultural Performance on "Black Twitter." *Television & New Media, 15*, 223-237.

Fountain. J. W. (2012, August 8). Why are African-American women criticizing Gabby Douglas hair? *Chicago Sun-Times*. Retrieved from: www.suntimes.com

Gabby Douglas hair comments confuse the Olympic gymnast (2012, August 5). Associated Press. Retrieved from www.huffingtonpost.com.

Gilens, M. (1996). Race and poverty in America public misperceptions and the American news media. *Public Opinion Quarterly*, 60(4), 515-541.

Gitlin, T. (1980). *The whole world is watching: Mass media in the making and unmaking of the New* Left. Berkeley, CA: University of California Press.

Glaser, B., & Strauss, A. (1967). T*he discovery of grounded theory*. Chicago, IL: Aldine.

Goldstein, B. (2012, August 6). Gabrielle Douglas, Joanna Rowsell—Olympian hair power. She The People blog. *The Washington Post*. Retrieved from www.washingtonpost.com

Grainger, A., Newman, J. I., & Andrews, D. L. (2006). Sport, the media, and the construction of race. In A. A. Raney & J. Bryant (Eds). *Handbook of sports and media*. (pp. 447-467). Mahwah, NJ: Lawrence Erlbaum.

Gramsci, A. (1971, 2010). *Selections from the prison notebooks*. New York: International Publishers.

Hall, S. (2003). The whites of their eyes: Racist ideologies and the media. In G.Dines & J. M. Humez (Eds.), *Gender, race, and class in media*. (pp. 89-93). Thousand Oaks, CA: Sage.

Hall, S. (1975). Introduction. In A. C. H. Smith (Ed.), *Paper voices: The popular press and social change*, 1935-1965 (pp. 11-24). London, UK: Cox & Wyman Ltd.

Hardin, M., Dodd, J. E., Chance, J., & Walsdorf, K. (2004). Sporting images in black and white: Race in newspaper coverage of the 2000 Olympic Games. *Howard Journal of Communications*, 15(4), 211-227.

Hardin, M., Kuehn, K. M., Jones, H., Genovese, J. & Balaji, M. (2009). "Have you got game?" Hegemonic masculinity and neo-homophobia in U.S. newspaper sports columns. *Communication, Culture & Critique*, 2:182–200.

Hardin, M., Dodd, J. E., & Lauffer, K. (2006). Passing it on: The reinforcement of male hegemony in sports journalism textbooks. *Mass Communication & Society,* 9(4), 429-446.

Hargittai, E., & Litt, E. (2011). The tweet smell of celebrity success: Explaining variation in Twitter adoption among a diverse group of young adults. *New Media & Society,* 13(5), 824-842.

Haughney, C. (2012, August 1). What's trending on Twitter? Itself. Media Decoder blog. *The New York Times*. Retrieved from www.nytimes.com

Heffernan, V. (2011, May 22). Making a hashtag of it. Opinionator blog. *The New York Times*. Retrieved from opinionator.blogs.nytimes.com

Hermida, A. (2010): Twittering the news. *Journalism Practice*, 4(3), 297-308

Hertog, J. K., & McLeod, D. M. (2001). A multiperspectival approach to framing analysis. In S. D. Reese, O. H. Gandy, & A. E. Grant (Eds.). *Framing public life: Perspectives on media and our understanding of the social world*. (pp. 139-161). Mahwah, NJ: Lawrence Erlbaum.

Higgin, T. (2010, May 17). Are Twitter trends the new barbershop? Gaming the System blog. Retrieved from http://www.tannerhiggin.com

Hill, J. (2012, August 3). Gabby Douglas' hair draws criticism. ESPN W. Retrieved from www.espn.go.com/espnw

Hoberman, J. M. (1997). Darwin's athletes: *How sport has damaged Black America and preserved the myth of race.* New York, NY: Mariner Books.

Jenkins, S. (2012, August 7). Gabby Douglas needs to avoid letting others set her narratives for her. *The Washington Post*. Section C, page 1.

Johnson, T. (2012, August 7). Did negative talk cause Gabby Douglas to stumble? The Grio. Retrieved from: www.thegrio.com

Jones, C., & Shorter-Gooden, K. (2003). *Shifting: The double lives of black women in America*. New York, NY: HarperCollins Publishers.

Kitch, C. (2007): Mourning "men joined in peril and purpose": Working-class heroism in news repair of the Sago miners' story. *Critical Studies in Media Communication*, 24(2), 115-131.

LaBennett, O. (2012, August 7). Gabby Douglas is not her hair. *Ms. Magazine*. Retrieved from www.msmagazine.com

Le Tellier, A. (2012, August 3). Why are people being mean to Gabby Douglas? *The Los Angeles Times.* Retrieved from: www.latimes.com

Littal, R. (2012, August 3). Olympic gymnast Gabby Douglas' hair controversy shows how stupid we have become. Black Sports Online. Retrieved from blacksportsonline.com

Loke, J. (2012). Old turf, new neighbors. *Journalism Practice*, 6(2), 233-249.

Macur, J. (2012, August 4). America's megawatt sweetheart: Gabby Douglas, Gold-medal Olympic gymnast, rockets to stardom. *The New York Times*. Retrieved from http://www.nytimes.com

Manjoo, F. (2010, August 10). How black people use Twitter: The latest research on race and microblogging. Slate. Retrieved from http://www.slate.com

Marques, M. (2012, August 1). Gabby Douglas' hair: US Olympics gymnast gets heat via Twitter over her hairstyle. The Huffington Post. Retrieved from www.huffingtonpost.com.

Martindale, C. (1986). *The white press and black America*. New York, NY: Greenwood.

McEwen, L. (2012, August 6). Gabby Douglas and her ponytail: what's all the fuss about? The Root blog. Retrieved from www.theroot.com

Meyers, M. (2004): African American women and violence: gender, race, and class in he news. *Critical Studies in Media Communication*, 21(2), 95-118.

Miles, T. (2012, August 6). Opinion: Why focus on Gabby Douglas' hair? In America blog. CNN. Retrieved from: http://inamerica.blogs.cnn.com

Mitchell, M. (2012, August 8). Why the big hairy deal over Gabby Douglas' ponytail? *The Chicago Sun-Times*. Retrieved from: www.cst.com.

Neal, M. A., Clark, M., & Williams, S. (2013, March 11). Black Twitter activism, bigger than hip hop. Presented at 2013 South by Southwest, Austin, TX.

Nielsen, C. (2013). Wise Latina: Framing Sonia Sotomayor in the general-market and Latino/a-

oriented prestige press. *The Howard Journal of Communication*, 24(2), 117-133.

Nielsen, C. (2012). Newspaper journalists support online comments. *Newspaper Research Journal,* 33(1), 86-100.

Nielsen, C. (2011). Moving mass communication scholarship beyond binaries: A call for intersectionality as theory and method. *Media Report to Women, 39(1)*, 6-22.

Nunley, V. (2011). Keepin' it hushed: *The barbershop and African American hush harbor rhetoric*. Detroit, MI: Wayne State University Press.

Prince, A. (2009). *The politics of black women's hair* [Kindle version]. London, Ontario: Insomniac Press.

Randolph, M. (2012, August 1). Monisha's minute: The Gabby Douglas hair controversy unwrapped. Sporty Afros. Retrieved from www.sportyafros.com

Reese, S. D. (2001). Prologue—Framing public life: A bridging model for media research. In S. D. Reese, O. H. Gandy, & A. E. Grant (Eds.). *Framing public life: Perspectives on media and our understanding of the social world*. (pp. 7-31). Mahwah, NJ: Lawrence Erlbaum.

Riley, R. (2012, August 4). Don't ruin Douglas' moment with pettiness about hair. *USA Today*. Retrieved from www.usatoday.com

Rowe, D. (2004). Antonio Gramsci: Sport, hegemony and the national-popular. In R. Giulianotti (Ed.). *Sport and modern social theorists*. (pp. 97-110). Houndsmill, Hampshire, UK: Palgrave Macmillan.

Ruth, K. (2012, August 6). Gabrielle Douglas and her hair as Twitter #trending topic. Hound the Press blog. Retrieved from www.houndthepress.com

Samuels, A. (2012, August 2). Gabby Douglas takes two Olympic golds—and hair criticism. Daily Beast. Retrieved from www. dailybeast.com

Schlussel, D. (2012, August 3). Gold medal champ Gabby Douglas victim of racism from ... fellow US blacks. Retrieved from http://www.debbieschlussel.com

Sicha, C. (2009, November 11). What were black people talking about on Twitter last night? The Awl Blog. Retrieved from www.theawl.com

Smith, A. (2011). 13% of online adults use Twitter. Pew Internet. Retrieved from http://pewinternet.org

Smith, V. (1998). *Not just race, not just gender: Black feminist readings*. New York, NY: Routledge.

Stewart, D. (2012, August 1). Haters need to shut the hell up about Gabby Douglas' hair. Jezebel. Retrieved from www.jezebel.com

Talbert, M.W. (2012, March 14). SXSW 2012: The power of Black Twitter. *Black Enterprise*. Retrieved from www.blackenterprise.com

Timpane, J. (2012, August 2). Aah, the tweet, tweet sound of the Olympics. *The Philadelphia Inquirer*, p. C1.

Trujillo, N. (1991). Hegemonic masculinity on the mound: Media representations of Nolan Ryan and American sports culture. *Critical Studies in Media Communication*, 8(3): 290-308.

Ward, W. (2012, August 5). #Olympics: Negativity aside, social media are changing these games for the better. *Newsday*. Retrieved from www.newsday.com

Wharton, D. (2012, August 4). Trouble in 140 characters or fewer. *The Los Angeles Times*. Retrieved from www.latimes.com.

Whitehead, K. (2012, August 3). Serena Williams: Gabby Douglas hair debate 'ridiculous.' *USA Today*. Retrieved from www.usatoday.com

Whitlock, J. (2012, August 3). The root of Gabby's hair critics. Fox Sports. Retrieved from www.foxsports.com

Williams, V. (2012, August 4). Gabby Douglas's hair sets off Twitter debate, but some ask: 'What's the fuss?' *The Washington Post*, p. C1.

Wischhover, C. (2012, August 6). Gabby Douglas's mom takes on her daughter's hair haters: 'If she feels good about herself, who are you to criticize her?' Fashionista blog. Retrieved from: www.fashionista.com

Young, D. (2012, August 3). Proud: Watching Gabby Douglas make history. *Ebony.* Retrieved from www.ebony.com

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Data Journalism: An Explication

Cindy Royal and Dale Blasingame

The usage and application of data are reflected in recent, high profile topics in the news. The phrase "data journalism" began being used in place of "computer-assisted reporting" in the mid-2000s. But a precise and comprehensive conceptual definition has yet to be accepted. The phrase itself has a broad range of meanings that often cause confusion and difficulty of categorization. Using grounded theory to identify assertions of the phrases "data journalism" or "data-driven journalism" in both academic literature and media, this paper explicates a conceptual definition of data journalism and identifies several dimensions under which the definition may be operationalized.

Introduction

The usage and application of data are reflected in recent, high profile topics in the news. With investigations involving leaks of government information to the use of the phrase "big data" as it relates to social media, healthcare, business and science, understanding the role of data in our lives is more relevant than ever. The phrase "data journalism" began being used in place of the more traditional "computer-assisted reporting" in the mid-2000s and is often seen as interchangeable with the phrase "computational journalism." But, to date, few academic studies have focused on this phenomenon, and a precise and comprehensive conceptual definition has yet to be accepted. The phrase itself has a broad range of meanings that often cause confusion and difficulty of categorization. This paper explicates the definition of "data journalism" in hopes of providing clarity for future tracks of study and ways to operationalize it in research.

The use of data is an important part of most modern websites. It's what makes blogs, content management systems and social media possible, and it is evident in how media organizations use analytics for making decisions. Data can be used as a source for a story, used in infographics as part of a story or it can be the story, a data-driven interactive that allows the user to engage and customize the meaning based on variables and inputs. In 2014, an entire article was written with data, breaking the story of a Los Angeles earthquake by filling in specific data points in a predefined format (Neal, 2014; Schwencke, 2014).

News organizations, like Nate Silver's FiveThirtyEight site, have employed data analyses as their niche, and with the rise of journalistic platforms, sites like Medium,

Vox, Buzzfeed and Upworthy rely on data to manage content that comes from a range of sources. Data is the basis for the platforms that drive a media company's online businesses (Royal, 2014). But it can also be a controversial topic as it relates to measuring a journalist's output (Kirkland, 2014), and critiques of data journalism are being voiced as a caution against bias (Schrager, 2014).

There are numerous examples of organizations considered practitioners of data journalism. The New York Times was a pioneer in developing news applications that rely on data, with such projects as "Is It Better to Rent or Buy?", "New York State Test Scores", "Toxic Waters", and projects around The Olympics and Academy Awards coverage.

The interactive dialect quiz "How Ya'll, Youse and You Guys Talk" was the most visited story on nytimes.com in 2013 (and it was developed by an intern!). Interactive quizzes like this or those developed by BuzzFeed indicate a trend toward stories that incorporate user participation.

The Texas Tribune hosts a range of data applications including its Government Salaries Explorer and Public Schools Explorer. Other organizations regularly practicing data journalism techniques include the Los Angeles Times, WNYC, NPR, the Chicago Tribune, ProPublica and The Guardian with many other news organizations attempting to incorporate data presentations into their workflows.

With this range of potential uses for data, it seems like an appropriate time to understand what exactly is meant by "data journalism." This paper contributes to the research on data journalism to advance scholarly understanding of the concept by highlighting a range of assertions and identifying areas of categorization, specific dimensions, that will be useful in operationalizing the term in future studies.

Literature Review

The concept of "data journalism" may seem new, but it has roots in the well-established fields of graphic design and computer-assisted and investigative reporting. Edward Tufte, in his book The Visual Display of Quantitative Information (2001, p.13), defined a clear mission for statistical graphic design: "Excellence in statistical graphics consists of complex ideas communicated with clarity, precision and efficiency." This definition places the presentation of data firmly within the mission of journalism.

Philip Meyer, Professor Emeritus at the University of North Carolina, wrote the definitive books on computer-assisted reporting. He pioneered using social science methods in journalism in his Pulitzer-prize winning coverage of the 1967 Detroit race riots. Meyer said "knowing what to do with data is the essence of the new precision journalism" (Meyer, 1991).

What makes modern "data journalism" approaches new are the ability to present information online with an interactive component that allows for user customization and

the use of databases to populate graphics with dynamic information. Adrian Holovaty, formerly of WashingtonPost.com, founder of the now defunct website EveryBlock.com and considered an early adopter of data journalism, used the phrase “programmer as journalist,” defining an emerging technical role in news development for people with the skills to launch visualizations to the Web (Niles, 2006).

The use of data in journalism has been questioned and is often positioned in opposition to traditional reporting methods. On his website, Holovaty gave what he considered a “definitive, two-part answer “ to the question “is data journalism?” In a most direct way, he dealt with those who questioned data’s storytelling ability.

It’s a hot topic among journalists right now: Is data journalism? Is it journalism to publish a raw database? Here, at last, is the definitive, two-part answer:

> 1. Who cares?
> 2. I hope my competitors waste their time arguing about this as long as possible. (Holovaty, 2009)

The comments on that post ranged from snarky to serious, but Holovaty’s contempt for those who questioned data’s place in journalism was evident.

Data journalism has become an emerging topic in academic research. Royal (2010; 2012) published a case study of The New York Times Interactive News team, spending a week interviewing team members and studying their processes. She identified the unique skill sets, workflows and culture of an organization that integrated programming with storytelling. Royal (2013) also analyzed the diffusion of Olympic interactives of The New York Times over time. Parasie and Dagiral (2013) studied data-driven journalism at the Chicago Tribune and found that programmer-journalist practitioners have provided new ways for journalism to address social good.

The role of those practicing modern data journalism has been evolving since the mid-2000s. The New York Times Interactive News Technology department was featured in a New York Magazine article (Nussbaum, 2009). The function was described as one that “elevated coders into full-fledged members of the Times—deputized to collaborate with reporters and editors, not merely to serve their needs.”

Lewis and Usher (2013) more generally discussed the role of technology in newsrooms, specifically the introduction of open source culture and the professional organization Hacks and Hackers.

One of the first books written on “data journalism” was Facts Are Sacred (2013) by Simon Rogers, chronicling his responsibilities when he was data editor for *The Guardian*. Rogers is now data editor at Twitter.

Rogers (2013, p.19) said this of data journalism:

> *"Data journalism" or "computer-assisted reporting"? What is it? How do you describe it? Is it even real journalism? These are just two terms for the latest trend, a field combining spreadsheets, graphics, data analysis and the biggest news stories to dominate reporting in the last two years.*

Rogers also pointed to a "new, widespread transparency movement" and identified the four factors below as instrumental to data journalism's evolution.

> *• the widespread availability of data via the internet;*
> *• easy-to-use spreadsheet packages on every home computer;*
> *• a growing interest in visualising data, to make it easier to understand;*
> *• some huge news stories that would not have existed without the statistics behind them. (Rogers, 2013, p. 20).*

In Data Journalism: Mapping the Future, Beleaga (Mair & Keeble, 2013, p. 27) gave this definition of data journalism: "Reduced to its most basic feature, data journalism, or data-driven journalism, as it is also referred to within the industry and the academy, is the process of telling stories with data."

Joannes (Mair & Keeble, 2013, p. 28) added to our understanding by connecting data journalism to its role in a democracy. "Data journalism is a form of rich media with an added dimension: it implies a return to the factual, to the investigative. It's about interrogating the data, finding and formatting the relationships. Data journalism is a tool of democracy."

Other books have introduced data concepts as relevant to journalism, including Visualize This: The FlowingData Guide to Design, Visualization and Statistics (Yau, 2011) and Data Points: Visualization That Means Something (Yau, 2013).

To move beyond a basic understanding of data journalism, a more nuanced and thorough analysis of the phrase is in order. According to Fink and Anderson (2014, p. 2), "Data journalism is ultimately a deeply contested and simultaneously diffuse term, and thus would seem to impose analytical difficulties for those who wish to study it."

Coddington provided a typology of features of differentiation (professional orientation, openness, epistemology and vision of public) between the often-related fields of computer-assisted reporting, data journalism and computational journalism. "For researchers, however, these definitional questions are fundamental to analyzing these practices as sites of professional and cultural meaning, without which it is difficult for a coherent body of scholarship to be built" (Coddington, 2014, p. 2).

De Maeyer, et al. (2014, p. 8), in studying data journalism in Belgian media, also found difficulty in defining the field. "The very notion of data journalism shows a remarkably wide range of meanings among our respondents: despite the fact that there are themes that connect the diversity of discourses, there is no consensus on core issues regarding the definition of the phenomenon."

The area of data journalism saw a spate of articles in late 2014 that addressed its importance in scholarship. Data journalism was identified as a significant development and emerging area (Franklin, 2014; Lewis, 2014) and aligned with the history of quantification in journalism practice (Anderson, 2014). Fink and Anderson (2014, p. 1) carried out interviews with data journalists to define the field, using a grounded theory approach. “Understanding the phenomenon of data journalism requires an examination of this emerging practice not just within organizations themselves, but across them, at the inter-institutional level.” They describe a field in development, thus in need of clarification and understanding.

The Tow Center for Digital Journalism at the Columbia Journalism School released the report “The Art and Science of Data-Driven Journalism” in May 2014 (Howard, 2014). A special issue of the academic journal Digital Journalism is planned for publication in 2015 on “Journalism in the Era of Big Data .” In November 2014, the articles associated with the special issue were made available online. These projects represent a significant expansion of scholarly understanding dealing with the role of data in journalism, and many of the assertions offered by these articles are represented in this analysis.

Method

The method for this analysis is a qualitative study combining concept explication and grounded theory, complemented by quantitative word frequency analysis and video interviews. Grounded theory employs a systematic, qualitative exploratory approach (Glaser, 1967). Chaffee provided guidelines for performing concept explication (1991), and studies of this nature have been applied in journalism scholarship when issues are emerging or contested. Examples include research studies that explicate interactivity (Kiousis, 2002) and journalism-as-a-conversation (Marchionni, 2013).

This analysis used a modified version of Chaffee’s approach by identifying relevant literature and locating potential assertions of “data journalism” as used in communication and other academic sources and general press. We then identified several relevant dimensions and developed a comprehensive conceptual definition. The goal was to identify as many definitions or descriptions of the phrase as possible within sources relevant to journalism and mass communication.

Research Questions

RQ1: What are the sources publishing assertions of “data journalism”?

RQ2: What themes emerged in the assertions of “data journalism”?

RQ3: What are the dimensions of the phrase “data journalism” evident in assertions provided across journalism resources?

RQ4: What is the comprehensive, conceptual definition of “data journalism”?

The search for assertions of “data journalism” began with academic research about communication, using the Communication Source research database. A search of the database for “data journalism” OR “data-driven journalism” yielded 12 peer-reviewed articles. When not controlling for “peer-reviewed” publications, 28 items were present in the database. Of the 28, 15 were used in the analysis. Non-English language articles and those that did not contain a useful description of the phrase “data journalism” were eliminated.

The phrase “data journalism” is much more widely used on the open Internet on websites that report on current trends in journalism and may be too new to have had many academic research papers written discussing it. Specific sources in which the researchers were aware that covered new issues related to journalism were tapped, including PBS Media Shift, the Poynter Institute and other academic sources related to journalism, including Nieman Journalism Lab, #ISOJ Journal and Digital Journalism. Finally, a general Google search for the term was performed to identify any other relevant sources that used the phrase. While this approach does not represent a generalizable sample, it was chosen to generate as broad a range of descriptions of “data journalism” as possible.

Video Interviews

In addition to the textual analysis performed in this study, the authors interviewed data journalism professionals and educators at the Online News Association conference in Chicago in September 2014. We asked three questions:

1. What is data journalism?
2. What are the skills necessary to perform data journalism?
3. What trends do you see for the future of data journalism?

The videos of their responses are organized by section below. These responses correspond to the coding scheme of this study and provide additional validation for the direction and results. A consolidated video is provided at the end of the paper.

Identification of Sources

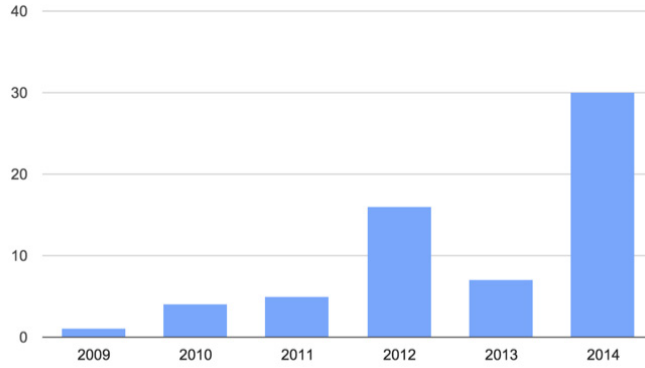
In answering Research Question #1, a total of 63 assertions defining or describing “data journalism” were identified across 23 sources. Each source is identified as having originated in the Communication Source research database, a professional online publication or other academic source not identified in the research database. Other academic sources were identified as those being associated with a university or an academic journal known for its work in the area that is not yet indexed by the Communication Source database. It is important to note that most of the early discussion of “data journalism” occurred in the professional online or other academic sources.

Sources of Data Journalism Definitions

- #ISOJ Journal – Other Academic
- British Journalism Review – Communication Source
- Columbia Journalism Review – Other Academic
- Data Journalism Handbook – Professional Online
- DataDrivenJournalism.net – Professional Online.
- Digital Journalism – Other Academic
- Editor and Publisher – Communication Source
- Global Media Journal: Australian Edition– Communication Source
- Global Media Journal: Canadian Edition – Communication Source
- Guardian and Guardian Datablog – Professional Online
- Index on Censorship – Communication Source
- Intermedia – Communication Source
- Journalism – Communication Source
- Journalism and Mass Communication Quarterly – Communication Source
- Journalism Studies – Communication Source
- Mashable – Professional Online
- Media Magazine – Communication Source
- New Media and Society – Communication Source
- Nieman Lab – Other Academic (Harvard)
- PBS MediaShift – Professional Online
- Poynter – Professional Online
- Quill – Communication Source
- Tow Center Blog/Reports at Columbia University – Other Academic

The years in the sample were referenced as follows, indicating a strong increase in interest and discourse about “data journalism” over time (See Figure 1).

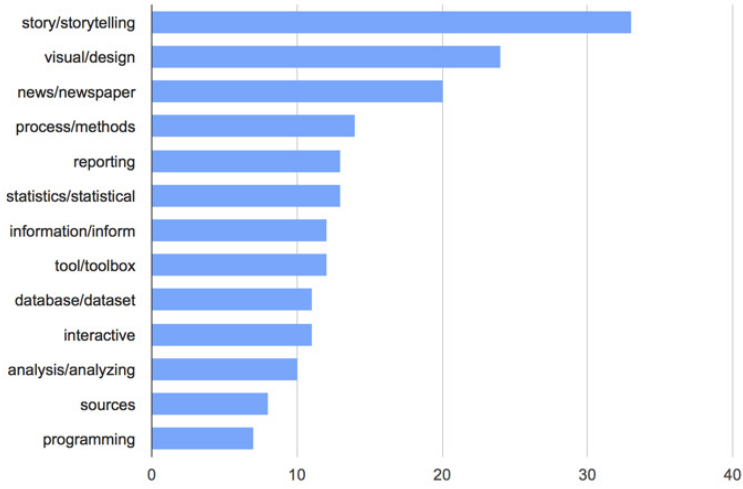
Figure 1: Assertions by Year



Emerging Themes

To answer Research Question #2, the full text of all the assertions was analyzed for frequency of terms via a Python script developed by the authors for counting word frequency. The following were the most commonly used themes across the sample, controlling for “data” and “journalism” across the assertions (see Figure 2).

Figure 2: Frequency of Terms in Sample Assertions by Year



The prevalence of these terms indicates that statements dealing with “data journalism” are grounded in many of the concepts of traditional journalism—storytelling, news, information, sources and reporting, but words like statistics, visualizing, interactive, tools, database and programming add the new or contemporary element.

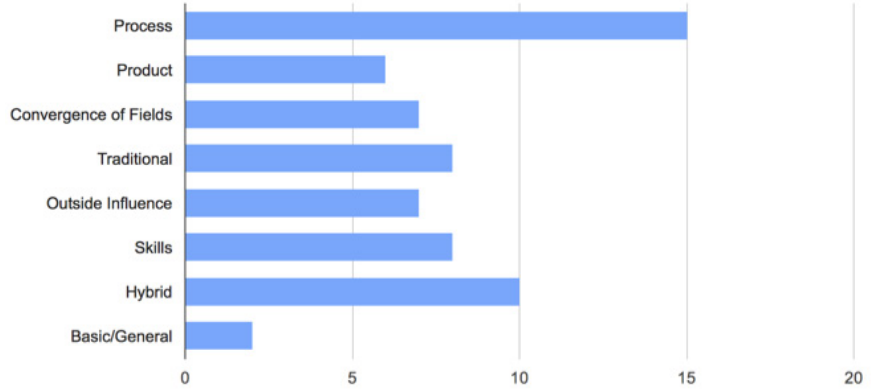
Identifying Dimensions

In addressing Research Question #3, the assertions were coded and categorized using the grounded theory approach, with the goal of identifying the various dimensions of the phrase. The following dimensions emerged within the sample (see Figure 3). Some definitions exhibited characteristics of multiple dimensions and were categorized as hybrid statements.

Note: Complete coded definitions can be found in the Google Spreadsheet at https://docs.google.com/spreadsheets/d/1PXKt_kTpwC7Wy8lF0_uFr471p_zFAYsBIe2pPMcVCuQ/edit?usp=sharing.

The results are discussed below.

Figure 3: Representation of Dimensions



These categories are consistent with and add to areas identified by Coddington (2014, p. 5):

> *Professional definitions have tended to be broad, characterizing data journalism as essentially any activity that deals with data in conjunction with journalistic reporting and editing or toward journalistic ends…. Several others have defined data journalism in terms of its convergence between several disparate fields and practices, characterizing it as a hybrid form that encompasses statistical analysis, computer science, visualization and web design, and reporting… Data journalism has been closely associated with the use and proliferation of open data and open-source tools to analyze and display that data…, though open data is not necessarily or exclusively a part of its domain of practice.*

Dimensions of Data Journalism

At the most basic level, a general definition was provided by Paul Bradshaw in the Data Journalism Handbook (Gray, J., Bounegru, L., & Chambers, L., 2012). “What is data journalism? I could answer, simply, that it is journalism done with data. But that doesn’t help much.” He continues to describe the complicated nature of describing data journalism.

> Both ‘data’ and ‘journalism’ are troublesome terms. Some people think of ‘data’ as any collection of numbers, most likely gathered on a spreadsheet. 20 years ago, that was pretty much the only sort of data that journalists dealt with. But we live in a digital world now, a world in which almost anything can be—and almost everything is—described with numbers.

The introduction of the book, entitled “What is Data Journalism?” continued to include a

range of potential definitions that are evident across several of the identified dimensions of this analysis. As the comprehensive textbook on “data journalism,” it was most prolific in providing early descriptions of the phrase.

Introduction: A video with introductory comments is provided at https://www.youtube.com/watch?v=k2aBj56P6tc.

Process

The most prevalent theme was the one that dealt with the process or general function of “data journalism.” Assertions including the term “process” or describing actions related to process as the primary function with words including “aggregating,” “filtering,” “organizing” or “visualizing” were coded in the Process dimension. Examples of the Process dimension include:

[Data journalism is] “a reporting process that uses spreadsheet programs to generate statistics from public records and data sets” (Hackett, 2013, p. 35).

[Data journalism is] “the aggregating, filtering, and visualizing of large sets of data, based on statistical methods of data analysis” (Dreyfus, S., Lederman, R., & Bosua, R., 2011, p.4).

“I would say data journalism is such a wide range now of styles—from visualisation to long form articles. The key thing they have in common is that they’re based on numbers and statistics—and that they should aim to get a ‘story’ from that data. The ultimate display of that story, be it words or graphics, is irrelevant, I think—it’s more about the process” (Rogers, 2012).

“Data journalism is the practice of finding stories in numbers and using numbers to tell stories” (Howard, Art and Science, 2014).

“Doing data journalism implies to ‘process data’, to access it, to correlate it, and finally

to present it, but also to do a form of data-seeking journalism, or even a way to use databases" (DeMaeyer et al, 2014, p. 8).

Process: The video demonstrating Process definitions is available at https://www.youtube.com/watch?v=BkFPuyfjAdE.

Product

Other sources focused on the news products or outcomes of a "data journalism" activity, referencing "graphics," "infographics," "customization," "charts," "maps" and "Web apps." Examples of the Product dimension include:

"Data journalism can help a journalist tell a complex story through engaging infographics" (Gray, J., Bounegru, L., & Chambers, L., 2012).

[Data journalism is] "news products that engage the user and that often use a database to populate the information" (Royal, 2012, p. 10).

"Any method of storytelling that engages the user with customization and interactivity and presents data in a visual manner through charts, maps and simulations" (Royal, 2013, p. 112).

"Data journalism—interactives, infographics, charts and tables—were tapped to convey factual aspects like historical timelines and status of gun control policy" (Xie, 2013).

"Some stories are just better told as databases and interactive web apps" (Betancourt, 2009).

Product: The video demonstrating Product definitions is available at https://www.youtube.com/watch?v=Qi-iXJV9iow.

Convergence of Fields

Assertions that described “data journalism” by referencing a list of different academic or professional fields were coded in the Convergence of Fields dimension. These areas included social science, statistics, data analysis, data science and computer science. The statements in this dimension emphasized the intersection of journalism with other fields. Examples of the Convergence of Fields dimension include:

> “Data journalism is ‘incomprehensibly enormous,’ in part because it represents the convergence of several fields—programming, design, statistics and investigative research, to name a few” (Bradshaw, 2010).

> “In the hands of the most advanced practitioners, data journalism is a powerful tool that integrates computer science, statistics, and decades of learning from the social sciences in making sense of huge databases” (Howard, Art and Sciences, 2014).

> “Data journalism is currently an emerging form of storytelling, where traditional journalistic working methods are mixed with data analysis, programming and visualization techniques” (Appelgren & Nygren, 2014, p. 394).

> “Data journalism is a journalism specialty reflecting the increased role that numerical data is used in the production and distribution of information in the digital era. It reflects the increased interaction between content producers (journalist) and several other fields such as design, computer science and

statistics. From the point of view of journalists, it represents ‘an overlapping set of competencies drawn from disparate fields’” (Thibodeaux, 2011).

Convergence of Fields: The video demonstrating definitions dealing with Convergence of Fields is available at https://www.youtube.com/watch?v=x8Ozu3sYvU0.

Traditional

The Traditional category included assertions that explained that “data journalism” was not a new field and should be considered in relation to the legacy of data analysis in journalism. It also included descriptions defining “data journalism” in comparison to what it is not or how it differed from traditional journalism. Examples of the Traditional dimension include:

> “Data journalism and its practice are not new, along with existing critiques of its practices or of programming in journalism generally “(Howard, Debugging the Backlash, 2014).

> “One of the editors points out that analyzing data is not in itself something new for journalists, however, the new tools that are currently available speed up the process of working with large data sets” (Appelgren, E., & Nygren, G., 2014, p. 403).

> “What makes data journalism different to the rest of journalism? Perhaps it is the new possibilities that open up when you combine the traditional ‘nose for news’ and ability to tell a compelling story, with the sheer scale and range of digital information now available” (Gray, J., Bounegru, L., & Chambers, L., 2012).

> “Although journalists have been using data in their stories for as long as they

have been engaged in reporting, data journalism is more than traditional journalism with more data“(Howard, Art and Science, May 2014).

“What’s new isn’t so much data journalism, but rather the method that allows us to cross-tabulate data on a large scale” (DeMaeyer et al, 2014, p.9).

Traditional: The video demonstrating Traditional definitions is available at https://www.youtube.com/watch?v=hk_zeWTSCAk.

Outside Influence

The descriptions in the Outside Influence category defined “data journalism” as it relates to its effects on individuals and culture. These assertions framed the description in terms of the benefits associated with users and society. Assertions that discussed “Freedom of Information” and the role of journalists in a democracy were included in the Outside Influence dimension. Examples of the Outside Influence dimension include:

“It can help explain how a story relates to an individual” (Gray, J., Bounegru, L., & Chambers, L., 2012).

“Data-driven journalism” improves the way journalism can contribute to democracy—especially at a time when a growing number of data sets are released by governments” (Parasie & Dagiral, 2013, p. 855).

“After all, programming and data are journalism. And it can be practiced in such a way that it can create interaction, user engagement, and more information in terms of seeking the truth. Especially when you talk about Freedom of Information access to government data—if the public can have access to that in a way that makes sense to them, or in a way that’s easy for them to use, then

that's just really powerful" (Garber, 2010).

"Reporting that seeks to quantify events and make real, numerical sense of human suffering and significant events" (Arana, 2012, p. 178).

"Building capacity in data journalism is directly connected to the role the Fourth Estate plays in democracies around the world. There are important stories buried in that explosion of data from government, industry, media, universities, sensors, and devices that aren't being told because the perspective and skills required to do it properly aren't widespread in the journalism industry" (Howard, Art and Science, 2014).

Outside Influence: The video demonstrating definitions dealing with Outside Influence is available at https://www.youtube.com/watch?v=VTkuOP18w_Y.

Skills

A set of assertions emphasized the skills, roles or technologies one needs to perform data journalism, often framed in an educational context. Examples of the Skills dimension include:

"I think schools are making a better effort to train young journalists in many of the skills that fall under the umbrella of data journalism: data wrangling, analysis, visualization; statistics; digital literacy (how does the Web work?); Web development" (Howard, Profile of the Data Journalist, 2014).

"Data journalism is a new set of skills for searching, understanding and visualizing digital sources in a time that basic skills from traditional journalism just aren't enough. It's not a replacement of traditional journalism, but an

addition to it" (Gray, J., Bounegru, L., & Chambers, L., 2012).

"Emergence of a new generation of web-based technologies that have made the presentation and visualization of data-driven stories easy even for those with no database or web development experience" (Vallance-Jones, F., 2013, p. 19).

Skills: The video demonstrating definitions dealing with Skills is available at https://www.youtube.com/watch?v=DS4Jj9VUUZo.

Hybrid

Finally, a series of assertions employed more than one dimension to describe the breadth of "data journalism," often invoking process along with product, skills or outside influence. Examples of the Hybrid dimension include:

"Data journalism is bridging the gap between stat technicians and wordsmiths. Locating outliers and identifying trends that are not just statistically significant, but relevant to de-compiling the inherently complex world of today" (Gray, J., Bounegru, L., & Chambers, L., 2012). This assertion exhibited the Process, Skills and Outside Influences dimensions.

"Sourcing, reporting and presenting stories through data-driven journalism, and visualising and presenting data (including databases, mapping and other interactive graphics)" (Arthur, 2010). This assertion exhibited Process and Product dimensions.

"Data journalism is an umbrella term that, to my mind, encompasses an ever-growing set of tools, techniques and approaches to storytelling. It can include everything from traditional computer-assisted reporting

> (using data as a 'source') to the most cutting edge data visualization and news applications. The unifying goal is a journalistic one: providing information and analysis to help inform us all about important issues of the day" (Gray, J., Bounegru, L., & Chambers, L., 2012). This assertion exhibited the Process, Product and Outside Influences dimensions.

"Broadly speaking, 'data journalism' is a fairly recent term that is used to describe a set of practices that use data to improve the news. These range from using databases and analytical tools to write better stories and do better investigations, to publishing relevant datasets alongside stories, and using datasets to deliver interactive data visualizations or news apps" (Gray, 2012). This assertion exhibited Process and Product dimensions.

"It argues that journalism, and hence data journalism, can be understood as a socio-discursive practice: it is not only the production of (data-driven) journalistic artefacts that shapes the notion of (data) journalism, but also the discursive efforts of all the actors involved, in and out of the newsrooms" (DeMaeyer et al, 2014, p. 3). This assertion exhibited Process and Product dimensions.

Hybrid: The video demonstrating Hybrid definitions is available at https://www.youtube.com/watch?v=ce570olLO4Y

Conclusion & Future

The phrase "data journalism" inspired a range of descriptions across various sources within the dimensions of Process, Product, Convergence of Fields, Traditional, Outside Influence and Skills. Some definitions sought to capture the breadth of "data journalism" with comprehensive hybrid descriptions. The most common assertions focused on the Process dimension, with a relatively even representation of assertions across most other dimensions.

Based on this analysis, the following comprehensive, conceptual definition is offered in answer to Research Question #4:

> Data journalism is a process by which analysis and presentation of data are employed to better inform and engage the public. Its roots are in the fields of computer-assisted and investigative reporting, but data journalism products may add engagement through customization and user contribution made possible by Web development and programming techniques.

However, a definition that includes too many dimensions may not be useful for a specific purpose. The focus of the definition may need to vary in order to operationalize a research question based on the purpose or needs of the specific analysis. This analysis provides the dimensions under which operational definitions can be crafted or scholarship can be focused.

This is an important area of study due of its relative newness and rapidly changing nature. Before one can study a field, one must comprehend the range of dimensions to better focus on a particular phenomenon. Future research can emphasize specific dimensions or analyze interactions between dimensions.

This area is also important because there has been criticism of the lack of interest or aptitude amongst the journalism profession in working with numbers and data. Adrian Holovaty (2006) said, “I’ve only met a handful of people who became journalists because they like information. And I think that helps explain why there have been some major cultural issues in the journalism world in the age of the Internet”

Or as Aron Pilhofer, formerly of *The New York Times* and currently Executive Editor of Digital at the Guardian, said:

> Journalism is one of the few professions that not only tolerates general innumeracy, but celebrates it. I still hear journalists who are proud of it, even celebrating that they can’t do math, even though programming is about logic. It’s hard to get a journalist to open up a spreadsheet, much less open up a command line. It is just not something that they, in general, think this is held to be an important skill… It’s a cultural problem. (Howard, Aron Pilhofer and Data Journalism, 2014).

Others remain skeptical as to the usefulness of data journalism:

> Data journalism is nice, but it’s not life. Yet, by doing our job as journalists, we must tell life as it happens. And it’s not enough to stay behind one’s desk with a computer, one must go out into the field. Check if the data that you have is for real. You will not tell people, on television for example, that life expectancy is 70 without going out to see old people. (DeMaeyer et al, 2014, p. 11).

The issues that separate journalism from the technology culture that develops the tools and platforms used to distribute news and information, as well as the general comprehension of the role of data in storytelling, will need to be better understood in order to assist the profession in dealing with these intersections.

Data journalism is considered in its infancy but has gained a strong following of practitioners. Several events around data journalism have emerged with the School of Data Journalism conference in Perugia, Italy each spring as well as the National Institute of Computer-Assisted Reporting (NICAR) conference that has become the main event for producers of data journalism. Additionally, academic resources have been developed to teach data journalism, including Massively Open Online Courses provided by the European Journalism Centre and the Knight Center for Journalism in the Americas at The University of Texas at Austin . Academic journalism programs have begun introducing data and visualization techniques in their curriculum and new programs exist to combine computer science and journalism .

“Data journalism” is expected to continue to be the focus of news stories and scholarship. And a field of “computational journalism” is emerging that provides many of the same aspects of “data journalism,” although its use has been mostly academic (Cohen, Hamilton & Turner, 2011; Anderson, 2013; Flew, Spurgeon & Swift, 2012). The role of “big data” is expected to continue to be an important area for journalism practitioners and researchers. “Big data invokes a wide range of normative claims and practical implications for journalism as a professional practice and an organizational production—from knowledge work and economic rationale to practical skills and philosophical ethics” (Lewis & Westlund, 2014, p.3).

Limitations of this study include the method to which assertions were generated. The purpose of the selected method was to generate as many assertions of the phrase “data journalism” across relevant sources in the related academic and professional arenas. But this method did not generate an exhaustive list. Other methods may generate new or

different sources. The field is moving quickly and new research is being generated at a rapid pace that make it difficult to pinpoint a definitive understanding of the phrase, while it is still evolving.

We will continue to see new methods of reporting that employ data and programming techniques, thus this analysis is a first step in better understanding the field so that we can productively employ it in scholarly research and other types of academic writing. But we need a starting point. What this analysis does is provide a more nuanced and systematic understanding of data journalism as a research area within the realm of journalism scholarship.

Full Video of all the segments above is available at *https://www.youtube.com/watch?v=p8rMvHKXWKc.*

References

Anderson, C. W. (2014). Between the unique and the pattern: Historical tensions in our understanding of quantitative journalism. *Digital Journalism*. Published online Nov. 20, 2014.

Anderson, C. W. (2013). Towards a sociology of computational and algorithmic journalism. *New Media & Society*, 15(7), 1005-1021.

Bradshaw, P. (2010). How to be a data journalist. *Guardian Data Blog*. October 1, 2010. http://www.theguardian.com/news/datablog/2010/oct/01/data-journalism-how-to-guide.

Chaffee, S. H. (1991). *Explication* (Vol. 1). SAGE Publications, Incorporated.

Coddington, M. (2014). Clarifying journalism's quantitative turn. *Digital Journalism*. Published online Nov. 7, 2014. http://www.tandfonline.com/doi/abs/10.1080/21670811.2014.976400?src=recsys#.VSP7aJPF87Q

Cohen, S., Hamilton, J. T., & Turner, F. (2011). Computational journalism. *Communications of the ACM*, 54(10), 66-71.

De Maeyer, J., Libert, M., Domingo, D., Heinderyckx, F., & Le Cam, F. (2014) Waiting for data journalism. *Digital Journalism*. Published online November 27, 2014. http://www.tandfonline.com/doi/abs/10.1080/21670811.2014.976415#.VSP7o
pPF87Q

Fink, C., & Anderson, C. (2014). Data journalism in the United States. *Journalism Studies*. Published online Aug. 8, 2014. http://dx.doi.org/10.1080/1461670X.2014.939852.

Flew, T., Spurgeon, C., Daniel, A., & Swift, A. (2012). The promise of computational journalism. *Journalism Practice*, 6(2), 157-171.

Franklin, B. (2014). The future of journalism. *Digital Journalism* 2(3). Pages?

Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. Piscataway. NJ: Transaction.

Gray, J., Chambers, L., and Bounegru, L. (2012). *The data journalism handbook*. O'Reilly Media, Inc.

Holovaty, A. (2006). A fundamental way newspaper sites need to change. September 6, 2006. http://www.holovaty.com/writing/fundamental-change

Holovaty, A. (2006). The definitive, two-part answer to Is data journalism?" May 21, 2009. http://www.holovaty.com/writing/data-is-journalism/

Howard, A. (2014). Aron Pilhofer on data journalism, culture and going digital. Tow Center for Digital Journalism Blog. March 27, 2014. http://towcenter.org/blog/aron-pilhofer-data-journalism-culture-going-digital

Howard, A. (2014). The art and science of data-driven journalism. Tow Center for Digital Journalism Blog. May 30, 2014. http://towcenter.org/blog/the-art-and-science-of-data-driven-journalism/

Kiousis, S. (2002). Interactivity: A concept explication. *New Media & Society 4*(3), 3.

Kirkland, S. (2014). As reporters get measured, why even BuzzFeed, Upworthy Aren't beholden to numbers, Poynter.org. March 25, 2014. http://www.poynter.org/latest-news/mediawire/244541/as-reporters-get-measured-why-even-buzzfeed-upworthy-arent-beholden-to-numbers/

Lewis, S. (2014). Journalism in the era of big data. Digital Journalism. Published online Nov. 27, 2014. URL?

Lewis, S., & Usher, N. (2013). Open source and journalism: Toward new frameworks for imagining news innovation. Media, Culture & Society, 35(5), 602-619.

Lewis, S. & Westlund, O. (2014). Big data and journalism. Digital Journalism. Published online Nov. 27, 2014. http://www.tandfonline.com/doi/abs/10.1080/21670811.2014.976418?src=recsys#.VSP8DJPF87Q

Mair, J. & Keeble, R. L. (2014). Data journalism: Mapping the future. Suffolk, UK: Abramis.

Marchionni, D. M. (2013). Journalism as a Conversation: A concept explication. C*ommunication Theory*, 23(2), 131-147.

Meyer, P. (1991). *The new precision journalism*. Bloomington, IN:Indiana University Press.

Neal, R. (2014). Robo-journalism: LA Times bot writes and publishes earthquake article in 3 minutes. *International Busiiness Times*. March 19, 2014. http://www.ibtimes.com/robo-journalism-la-times-bot-writes-publishes-earthquake-article-3-minutes-1562397

Niles, R. (2006). The programmer as journalist: A Q&A with Adrian Holovaty. *Online Journalism Review.* June 5, 2006. http://www.ojr.org/the-programmer-as-journalist-a-qa-with-adrian-holovaty/

Nussbaum, E. (2009, January 11). Goosing the Gray Lady. *New York Magazine*.

Parasie, S., & Dagiral, E. (2013). Data-driven journalism and the public good: 'Computer-assisted-reporters' and 'programmer-journalists' in Chicago. *New Media & Society*, 15(6), 853-871.

Rogers, S. (2013). Facts are Sacred: The power of data. London, UK: Faber & Faber.

Royal, C. (2013). Interactives of Olympic proportions: Diffusion of innovation at The New York Times. ISOJ Journal, Spring, Vol. 3(2).

Royal, C. (2010). The journalist as programmer: A case study of The New York Times interactive news technology department. Paper presented at the International Symposium On Online Journalism. Austin, Texas. April 2010. https://online.journalism.utexas.edu/2010/papers/Royal10.pdf

Royal, C. (2012). The Journalist as Programmer: A Case Study of The New York Times Interactive News Technology Department, ISOJ Journal, Spring, Vol 2(1)

Royal, C. (2014). Are journalism schools teaching their students the right skills. *Nieman Journalism Lab*. http://www.niemanlab.org/2014/04/cindy-royal-are-journalism-schools-teaching-their-students-the-right-skills/

Schrager, A. (2014, March, 19). The problem with data journalism. Quartz. http://qz.com/189703/

the-problem-with-data-journalism

Schwencke, K. (2014, March 17). Earthquake aftershock: 2.7 quake strikes near Westwood. http://www.latimes.com/local/lanow/earthquake-27-quake-strikes-near-westwood-california-rdivor,0,3229825.story - axzz2wQwc82EK

Tufte, E. R., & Graves-Morris, P. R. (1983). *The visual display of quantitative information* (Vol. 2). Cheshire, CT: Graphics Press.

Yau, N. (2011). Visualizing data: The flowing data guide to design, visualization and statistics. Hoboken, NJ: Wiley.

Yau, N. (2013). Data points: Visualizing data that means something. Hoboken, NJ: Wiley.

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Leaning Conservative: Innovation and Presidential Campaign Coverage by U.S. Newspaper Websites in the Digital Age

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Across the four presidential election years of the Internet age, massive changes occurred in campaign coverage. Or did they? This article reports on a unique longitudinal study: a series of four national surveys of online newspaper editors—in 2000, 2004, 2008, and 2012—that provide insights into evolving capabilities and their impact on journalists' own perceived social role. The results indicate widespread adoption of technological innovations, including those enabling citizens to shape the nature of their political engagement. Yet what matters most to online editors has been their own expanding capability to provide traditional kinds of information in new ways.

Journalists have long seen themselves as crucial providers of civically valuable information, and the quality of their election coverage holds pride of place in that self-assessment. According to the journalist's view of democracy, the core value of their endeavor lies in enabling citizens to inform themselves wisely enough to remain free and self-governing (Gans, 2003; Kovach & Rosenstiel, 2007)—a value that journalists insist endures, indeed expands, as potentially harmful misinformation or disinformation proliferates in our open networked world. Presidential elections, in particular, are a spectacular form of theater not only for politicians and their retinue (Campbell, 2008) but also for journalists, enabling them to carefully plan their coverage before stepping onstage to perform for an audience.

But that audience has dramatically different capabilities, expectations, and behaviors than it did before the rise of the Internet. A series of Pew reports illustrates the scope of the changes framing this study. The last presidential election cycle in which digital media played only a negligible role was 1996, when just 4% of Americans went online for election news (Kohut & Rainie, 2000). Since then, reliance on the Internet for political information has grown sharply and steadily. By 2012, nearly half of Americans, and close to two-thirds of those under 30, cited the Internet as a main campaign news source; fewer than three in 10 said they relied mainly on newspapers (Pew Research, 2012). Citizens produced as well as consumed political information, particularly through ubiquitous social networks. In 2012, more than a third of U.S. users of Facebook and Twitter said they promoted materials about political or social issues; used the networks

to encourage others to vote; and/or published their own views about political or social issues (Smith, 2013). Mobile technologies were becoming platforms for civic activities once associated with legacy media, such as obtaining others' views about candidates or assessing the veracity of political information (Smith & Duggan, 2012). Overall, journalists played a smaller role in shaping what voters heard about candidates than they had a dozen years before (State of the News Media, 2013a).

Newspapers did not stand still during this period. Their affiliated websites, once disdained as peripheral at best to the "real" newsroom, became sophisticated centerpieces of a multi-platform news strategy. And although they no longer had a monopoly on news, they remained influential. By the time of the 2012 election, U.S. newspaper websites had, in the aggregate, well over 110 million unique monthly visitors (State of the News Media, 2013b), and the websites of newspapers and television news outlets accounted for 20 of the 25 most popular news sites for the year (State of the News Media, 2013c). Journalists from legacy outlets also were active in social media.

Across the four presidential election years of the Internet age, then, massive changes occurred in campaign coverage. Or did they? This paper reports findings from a unique longitudinal study: a series of four national surveys of online newspaper editors—in 2000, 2004, 2008, and 2012—that provide insights into the integration of expanded options for fulfilling their core civic function as journalists themselves define it. The results indicate widespread adoption of technological innovations but reluctance to cede or share prime occupational turf, the job of informing the electorate. Many options for involving citizens in election coverage have been made available but accorded relatively little merit by editors. Journalists still seem to see themselves as the lifeblood of democracy (Fenton, 2010) and to firmly believe that it cannot function without them.

Journalists, Political Coverage, and Digital Innovation

In the early 2000s, more than 70% of U.S. journalists identified serving as a government "watchdog" as their core social role, with a sizable majority also highlighting their ability to get information to the public quickly (Weaver, Beam, Brownlee, Voakes, & Wilhoit, 2007). A decade later, despite greater pessimism about their industry and profession, that watchdog role was even more likely to be seen as central to the journalistic enterprise; 78% of respondents labeled it extremely important, the highest percentage ever reported (Willnat & Weaver, 2014). The view of the journalist as a guardian of democracy has become a nearly transcendent self-perception, a source of vital resilience in the face of myriad technological, economic, and social changes. It has been ever thus; right from the start, journalists staked their claim to occupational legitimacy on a public need for reliable political information (Dooley, 2000). Not surprising, then, that many of the concerns journalists have raised about the Internet relate to whether its structure and affordances empower or compromise this mission (O'Sullivan & Heinonen, 2008).

Research into journalists' responses to technologically enabled innovation over the past 15 years also provides context for the present study. This work documents tentative

and often reluctant adaptation to a growing repertoire of newsroom tools and even more skepticism about expanding audience capacities. Pavlik (2013) defines journalism innovation as "the process of taking new approaches to media practices and forms while maintaining a commitment to quality and high ethical standards" (p. 183), and he sees it as the key to news media viability as staffs and budgets shrink. Yet scholars have found that through much of the 2000s, U.S. newspapers exhibited generally low levels of innovation, with actions shaped more significantly by institutional stasis than by any propulsion toward creativity in the face of environmental pressures (Lowrey, 2011). The following sub-sections consider journalists' adaptations to successive waves of change, particularly in relation to their political coverage and civic role.

Convergence and Multimedia

In 2000, newspaper-affiliated websites were all but ignored by most journalists in the "real" newsroom, the one whose output took the form of ink on paper. Online editors were not atypically outside the newsroom chain of command; their staffs were physically segregated and culturally isolated, accorded little attention and less respect (Singer, Tharp, & Haruta, 1999). Also ignored were signals that changes already under way necessitated innovation across the organization, not just in the murky corner where the geeky kids toiled at "repurposing" newspaper content. A comment from a print editor in the late 1990s is telling: "Our (online) news director needs to always be on top of new developments. It is not as critical for us on the print side" (p. 41).

In the early 2000s, some news organizations began trying to address this digital divide by promoting newsroom "convergence" as a model for a multi-platform future. Convergence involved combining technologies, products, staff, and geography among the previously distinct realms of print, television, and online media (Singer, 2004) in an effort to change not only physical and organizational structures but also the way journalists did their jobs (Huang & Heider, 2007). Things did not go swimmingly. In many newsrooms, convergence efforts were resisted overtly or covertly. Even if experiments succeeded, one observer predicted, the result would be to distract journalists from "that single most important imperative of the craft—to create an informed society capable of intelligently governing itself" (Haiman, 2001, page #). Although convergence had its champions, mainly among news managers tasked with implementing it, many newspaper journalists saw it as pulling them in a direction they had no desire to go. "I went to j-school to be a journalist, not to be a multimedia person, not to be a TV person, not to multitask," one veteran reporter said. TV journalism, he explained, is "abhorrent, a sub-species" (Singer, 2004, p. 14).

Whether or not newsrooms opted to "converge," greater emphasis on visual or "multimedia" storytelling was nearly universal in the early 2000s. Journalists instantly branded this innovation as supplemental, at best, to the skills that really mattered: the ones undergirding their ability to keep the citizenry informed. "It is fine to know all the bells and whistles in video and audio and Flash and all that," a journalist in a converged newsroom said. But reporting should still be "first and foremost. Newsgathering should be the most important thing" (Dupagne & Garrison, 2006, p. 250). There were

widespread complaints that multimedia technologies were difficult to learn, cumbersome to use, and most important, took time away from that crucial newsgathering responsibility (Avilés & Carvajal, 2008). Even at leading newspapers such as The New York Times, multimedia was used during the 2000s mainly as an extension of the written word rather than as a primary storytelling format (Jacobson, 2012).

Blogs and "J-Blogs"

Journalists also adopted blogs relatively slowly and with varying degrees of enthusiasm. Convergence and multimedia threatened to steal time that they felt could be put to better use. Bloggers—including political bloggers, among the first to gain prominence in the 1990s, when Matt Drudge broke the story of President Clinton's dalliance with a certain White House intern—threatened to steal their very identity as information providers. By the 2004 election campaign, blogs had become standard fare on campaign websites (Lawson-Borders & Kirk, 2005) and were widely used by politically engaged citizens, typically in combination with more traditional media fare (Gil de Zúñiga, Veenstra, Vraga, & Shah, 2010). All the major presidential candidates had at least one, and growing numbers of journalists and news organizations did, too.

Yet "j-blogs" posed a significant challenge to the professional norm of non-partisanship, a disinclination to take sides on issues of public controversy such as politics (Singer, 2005). While previous technological innovations had been resisted largely on logistical grounds, blogs posed more significant ethical issues for journalists. "Bloggers aren't preaching to the choir. They are the choir," a newspaper columnist wrote in 2004. "This isn't fair, unbiased and objective journalism. Nor is it trying to be" (Carlson, 2007, p. 268). Rare was the news organization that didn't quickly draft lengthy guidelines intended to assuage managers' fears that staffers would say something embarrassing at best and libelous at worst.

Of course, just as newsroom production of online content, including multimedia content, soon became commonplace, so too did newsroom publication of blogs. Singer (2005) suggests a process of normalization, in which an innovative form is shaped to fit existing conceptions and norms. Robinson (2006) offers a different interpretation, seeing j-blogs as a form of "reconstituted journalism" intended to recapture journalistic authority in the face of encroachments onto previously uncontested occupational turf. In doing so, she suggests, j-bloggers have not abandoned their traditional watchdog role but have taught themselves new tricks, some related to writing style but others "blurring the lines of independence, verification, the definition of news, and truth" (p. 79).

Newsroom blogs represented a transitional form of journalism, a bridge from traditional story structures to the social media formats that followed. Dependent on a journalist's selection of material and thus grounded in traditional notions of professional roles, j-blogs also gave notice that those notions were changing: Within a one-to-many form of mass communication, they opened possibilities for stronger interpersonal relationships between journalist and user than traditional formats allowed (Matheson, 2004).

User-Generated Content and Social Media

Subsequent innovations in the latter 2000s revolved around rapidly expanding user capabilities to generate, publish, and share content. For some, “Web 2.0” reignited earlier excitement about an “electronic republic” (Grossman, 1995) that might foster a digital version of the perpetually elusive public sphere envisioned by theorists (Dahlgren, 2005) or might at least lessen the influence of established news media over the political agenda (Bimber, 1998). For journalists, however, “user-generated content,” mainly though not exclusively in the form of comments on journalists’ stories, meant those in the newsroom no longer had the final say over what was published even under their own byline. Concerns were wide-ranging, but front and center were intertwined issues related to accuracy, credibility, and civility.

Material provided by users was difficult to verify—maybe factual, maybe merely “hearsay and gossip” (Lewis, Kaufhold, & Lasorsa, 2010). When journalists report a story, “we talk to at least three sources. When we print something, we know it’s as close to the truth as possible,” a U.S. community journalist said. “When you have a citizen who has a gripe about the police department, that’s going to be as much opinion as fact. It affects the credibility of your organization” (p. 170). A British journalist was even blunter: “The platform gives credibility to people whose comments may be completely inaccurate, offensive or without foundation in fact. It arguably undermines the work of professional journalists by placing the words of people who have no training or professional responsibility alongside, or even on a par with, those who do” (Singer & Ashman, 2009, pp. 12-13). Journalists also worried that they would be liable for material posted by users that might violate libel, hate speech, or copyright law.

Even generally innovative news organizations remained wary of user contact. Among news producers at 43 websites nominated for Online News Association awards in 2002, for example, Chung (2007) found that site producers were enthusiastic about interactivity only when it did not involve engaging with actual humans. They lauded their own ability to use then-novel technologies such as Flash to provide “different types of storytelling” (p. 51), and users’ ability to use online capabilities to shape personal news consumption. But the potential for interaction among users, or between users and newsroom staff, was viewed much more coolly, with interviewees citing concerns about increased workloads stemming from inappropriate user input.

By the 2012 election, users (and journalists) were also publishing extensively through social media. Many social media formats, such as Twitter, are essentially micro-blogs, and journalists’ responses have in some ways echoed those raised a few years earlier. But social media material is potential source material, and questions about trustworthiness have been especially pressing: Is the information important and reliable enough for me to incorporate in a story with my byline attached?

Many journalists were initially dubious, seeing 140-character shout-outs as uselessly annoying. “The amazing thing is that enough people out there think this mindless stream of ephemera (‘I’m eating a tangerine’, ‘I’m waiting for a plane’, ‘I want a Big Mac’) is

interesting," one columnist wrote (Arceneaux & Weiss, 2010, p. 1271). The ease with which anyone, anywhere could instantly post and share information through social media, without an editor in sight, was a source of particular concern in the political and civic realm. News organizations scrambled to produce guidelines for journalists to help them "gather, triangulate and verify the often conflicting information" emerging on social media, particularly at times of crisis or disaster (Silverman & Tsubaki, 2014

Nonetheless, journalists soon adopted social media. Indeed, it will be obvious that despite widespread initial resistance, all these "innovative" technologies have since become part of the newsroom landscape. Most newspapers today have a "digital-first" publishing philosophy. Visual news formats are pervasive. Rare is the journalist without a professional Twitter feed. Journalists' work practices have indeed changed in the digital age, but the changes tend to be reactive rather than proactive. Examples of innovations initiated within the newsroom, rather than belatedly adopted, are exceedingly rare. "For the most part," Ryfe (2012) points out, journalists "continue to gather the same sorts of information, from the same sorts of people, and package it in the same news forms they have used for decades" (p. 3). As O'Sullivan and Heinonen (2008) put it: "The social institution called journalism is hesitant in abandoning its conventions, both at organizational and professional levels," even as digital technologies have reshaped society's communication patterns. Journalists are not necessarily "recalcitrant technophobes, but they welcome the Net when it suits their existing professional ends and are much less enthusiastic about, and unlikely to promote, radical change in news work" (p. 368).

With this framework in mind, the longitudinal study reported here addresses the following research questions:

RQ1: To what extent did editors of leading U.S. newspapers incorporate new newsroom capabilities in their campaign and election coverage over the first four election cycles of the 2000s?

RQ2: To what extent did they incorporate new audience capabilities during this time?

RQ3: How, if at all, did these capabilities shape their own content choices?

Methodology

Post-election questionnaires were distributed in 2000, 2004, 2008, and 2012 to online editors of the largest-circulation newspaper in each state and the District of Columbia, plus additional papers with print circulations of 250,000 or above (traditionally the largest category used by the Newspaper Association of America) according to data from the Audit Bureau of Circulations. These major publications are the ones most likely to have brand name recognition for every voter in their state, making them likely sources for those turning to an online newspaper for political content. Closed-ended questions focused on the presence or absence of particular features. Open-ended ones

related to editors' goals for their election websites and content areas of which they were most proud, among other topics. These key questions were replicated each year and supplemented with additional items reflecting online developments at the time.

In 2000 and 2004, the questionnaire was distributed by email to online editors identified from published sources; their responses then were manually transferred into Excel and Word for analysis. In 2008 and 2012, SurveyMonkey was used instead. The pool of potential respondents declined over the years as the number of newspapers with circulations over 250,000 fell. The response rate also declined. In 2000, 80 U.S. newspapers were included in the study, with a 71% response rate of completed surveys. The numbers were 77 newspapers and a 61% response rate in 2004; 76 newspapers and a 42% response rate in 2008; and 73 newspapers and a 21% response rate in 2012, reflecting a documented rise in journalists' reluctance to respond to questionnaires (Weaver et al., 2007).

Editors from 41 states were represented in the 2000 study (Singer, 2003). The figure fell to 35 states and the District of Columbia in the 2004 study (Singer, 2006), then dipped again to 28 states plus DC in 2008 (Singer, 2009). In both 2004 and 2008, editors from the largest and smallest newspapers in the sample were among the respondents, and both surveys obtained responses from editors who had participated previously as well as editors who had not. The 2012 study was problematic not only because of the low response rate but also because a technical glitch made it difficult to ascertain exactly who had responded. However, responses to demographic questions indicated all were well-seasoned professionals, averaging more than 25 years in journalism.

Descriptive statistics were used to analyze responses to the closed-ended questions, which yielded mostly nominal data. Responses to open-ended questions were categorized thematically around journalistic roles, activities, and outputs related to evolving capabilities for innovation. Despite caution necessitated by the uneven response rates, broad comparisons over time were possible. Such longitudinal analysis is helpful in exploring the effects of social, cultural, and political change.

Findings: Coverage of U.S. Presidential Elections in the Digital Age

Findings suggest that despite massive changes in citizens' capabilities to shape the nature of political engagement, what has mattered most to editors has been their own expanding capability to provide traditional kinds of information in new ways. They consistently emphasized such long-standing news attributes as timeliness and enthused about the ability to contextualize political information, courtesy of an unlimited online news hole. Periodically, opportunities for more novel approaches were incorporated in their online offerings and duly noted. But those novelties then faded from noteworthiness in most editors' eyes; the primacy of "informing the public" never did.

In the sections below, the relevant citation to previously published results from the 2000, 2004, and 2008 studies is provided only once, for brevity.

The 2000 election: Need for speed

Nearly all the online editors in the 2000 study (Singer, 2003), 45 of the 49 who answered the question, cited a goal directly related to informing users. The ability to provide timely news, especially on Election Night, was particularly valued. Several respondents crowed that they could finally beat television … despite the fact that in 2000, some TV news outlets infamously jumped the gun and declared Al Gore the winner in Florida and therefore the nation. The Internet's lack of space constraints also was popular, for instance in publishing voting guides that gave readers "the ability to understand the choice they were about to make," as one editor said. In general, editors in 2000 saw the website as extending the print newspaper's brand rather than as a distinct entity.

Only four editors indicated they were attuned to the powerful potential of the then-new medium to stimulate political discourse among citizen users. Those four, however, were eloquent about its benefits. "This medium is about the empowerment of our community, to facilitate interaction with interesting or meaningful people," one editor wrote. "This is the place the readers have a voice, have a stake in the 'community' that a good newspaper nurtures."

Editors were invited to describe up to three sources of pride in their campaign coverage, and information-related attributes dominated the list. Sixty-seven items, more than two-thirds of the 95 listed in all, related either to depth and detail of the information provided or to its timeliness. Generating far less enthusiasm were options for user participation such as chats and discussion forums, cited 14 times as a source of pride. Editors who mentioned these options saw the ability to offer something impossible in print as their main advantage. Multimedia features generated 10 mentions, and another four editors cited as their top source of pride an option enabling users to identify the candidate whose issue positions best matched their own.

Overall, traditional information-oriented roles remained central to journalists' self-perception in their early years online. For most, the 2000 campaign marked an initial effort to provide extensive election coverage via the Internet, and they saw the medium as a way to address criticism about the superficiality of traditional political coverage. They were proudest of their new ability to offer breadth, depth, and utility not easily available in print. But their attempts at innovation were limited to doing old things in (somewhat) new ways. They viewed their goals and achievements in the context of good newspaper journalism, which could potentially be done better online.

The 2004 election: Other Voices

Editors of newspaper websites continued to emphasize their provision of credible information in the 2004 campaign (Singer, 2006). But at a time when blogs and other platforms were making it easier for people outside the newsroom to gain an audience for political commentary, survey respondents seemed more open to the idea that readers could help shape coverage.

That is not to say their aims had changed substantively from four years earlier. A clear majority—39 of the 47 editors answering the question—identified informing the public as the main goal, citing the Internet's ability to outperform print on speed, volume, and detail. Three emphasized the role of information in fostering civic engagement, for instance by increasing "interest in the process." But just two offered overall goals directly related to engaging citizens in a more explicitly discursive form of democracy, for instance through "blogs and forums, giving the voters the interactive ability to discuss the issues and candidates and also to interact live with the candidates."

Yet in describing their sources of pride in 2004, editors did place greater emphasis on these participatory options. There was a notable decline in the percentage of responses related to the timeliness of information, from 29 of the 95 total responses in 2000 to just 12 of 87 in 2004. In contrast, blogs, which were not available in 2000, were cited 16 times; options for user participation in and personalization of online offerings earned 11 mentions, a three-fold increase over 2000. Indeed, almost all the editors in the 2004 study said they complemented newsroom-generated political content with opportunities for users to contribute information or ideas.

The 2004 study identified three primary ways in which journalists facilitated a more participatory form of civic engagement. One was by providing baseline information that users could manipulate to suit individual needs or interests, for instance through ZIP code-tailored ballot builders. A second was the adoption of blogs, including those from local opinion leaders as well as from users. An editor whose website included three blogs, one featuring reader viewpoints, described them as "interesting, smart and lively," with a debate between two contributors offering "some of the best commentary and analysis anywhere." Chats, discussion forums, or message boards constituted the third avenue for user participation in 2004, with 33 of the 47 editors saying their sites offered such features, a place for people "to vent, to discuss, to congregate, to have their say."

In general, then, the 2004 study suggested considerably greater openness than in 2000 to the then-innovative idea that website audiences could make valuable contributions to newspaper campaign and election coverage. Though delivery of credible information was still of paramount importance, that information was less likely to be static and more likely to be open to user input. The findings suggested a move toward integration of the journalist's traditional civic role—providing trustworthy, accurate content to inform the electorate—with the open and participatory nature of the Internet.

The 2008 election: Back to Basics

If the 2004 election signaled a step forward in online editors' thinking about innovative campaign and election coverage, they took two steps back the next time around (Singer, 2009). In an election year during which social media gained importance and the Internet overtook newspapers as a primary source of presidential campaign news (Pew Research, 2008), most respondents to the 2008 questionnaire reverted to the themes expressed in a Web 1.0 world.

All 36 editors who answered the question about coverage goals in 2008 highlighted their own role as information providers, as in 2000 typically stressing the greater speed, volume, and capacity for detail online. A handful drew connections to civic engagement, but their goals had little to do with democratic discourse—that is, with use of the website as a platform to discuss political candidates or issues. Nearly all their websites included campaign-related contributions from users, but they did not seem to see that capability as having much if anything to do with them. Only one editor alluded to it at all in describing website goals—and his reference was to providing a platform for candidates, not users in general, to "describe themselves and discuss issues."

Earlier innovations within the newsroom, however, had gained wider acceptance by 2008. Multimedia content, primarily video, and journalist blogs were highlighted as sources of pride 15 and 18 times, respectively. Editors described their newsroom blogs as "the leading edge of our coverage," a place to provide "the inside story on our state's politicians" and a way to get a jump on competitors. Even so, traditional information continued to rule: 20 of the 31 editors offering a source of pride cited one or more features that offered deep or detailed information. And the ability to provide timely information on Election Night was mentioned a dozen times. Just two respondents said they were proud of user contributions, compared with seven in 2004 and 14 in 2000, years when far fewer options for such contributions were available.

All but one of the 32 respondents in 2008 said the website enabled users to contribute content, to personalize content provided by the newspaper, or both. But they described its value primarily in terms of utility to … journalists. Only three mentioned the ability for user-generated content to strengthen interactions among citizens. Instead, the overall focus was on strengthening the information product that they themselves provided, either by adding diverse perspectives or by creating a bigger pool of potential sources.

Findings from 2008, then, suggested a rather blasé response to perhaps the most significant innovation of the Internet age to date: the advent of a widespread ability for citizens to participate in online civic discourse. Although space on newspaper websites was increasingly likely to be shared, published items remained separate and unequal in the eyes of most editors, who valued user-generated content well below their own. Retreating from their tentative excitement over user participation in 2004, editors returned to their initial instinct, reasserting a deeply held self-perception (or at least hope) that journalists are indispensable to the proper functioning of democracy.

The 2012 Election: New Options, Old Attitudes

Which was the dominant trend over the four election cycles included in this study: an openness to innovative online affordances hinted at in 2004, or the renewed assertion of traditional perspectives evidenced in 2008? This section offers a more detailed look at findings from 2012. Although the low response rate means insights remain tentative, the data do suggest some talking points about the evolution of campaign coverage.

Content and coverage goals: Eleven of the 14 respondents answering the question

provided online features or applications in 2012 that were not available in 2008, and they made greater use of social and mobile media, as well as live blogging and other formats that enabled rapid updates. Respondents universally used Facebook and Twitter to promote their campaign and election content. There also were indications of a willingness to open up avenues for external contributions, as discussed further below. For example, one editor cited an app enabling users to see locally generated Twitter buzz about the presidential contenders; another said local candidates could record their own short videos to accompany newsroom-generated profiles.

Again asked to identify their primary coverage goal, every single respondent cited informing the public; as one wrote, “We did a lot of things to help readers make educated choices, but the primary goal is still to cover the news comprehensively.” In another echo of responses from four elections past, editors also commonly emphasized the speed of online information delivery, such as the respondent whose goal was to publish a “swift and efficient report on who/what won” as quickly as possible. All agreed their goals had been met; they cited both content-related markers such as speed or depth, and usage indicators such as website traffic, as well as revenue. In the assessment of another editor, “We’ve got the drill down.”

All but one editor said users could access campaign or election content through a mobile app in 2012. The nature of available content dictated the delivery platform: “Results grids worked best on the web; a post containing continuous one-line updates worked best on mobile; and longer pieces worked best in print,” one editor wrote. Although all the editors said they commonly followed a “digital-first” publishing strategy, the sense that print was best suited to analytical pieces and long-form journalism was evident in several responses. One editor summed up the “formula we always use” this way: “The Web is for a speedy and basic report, with the ability to search through all the past content. Mobile is for delivering fast information. Print is for a more polished and refined report, with more analysis, more intensive and customized design.”

User contributions: There also were plentiful opportunities for user contributions in 2012. They included, among other options, comments on stories, columns, and blogs (enabled by all 15 editors answering the question) and user Twitter feeds (nine editors). Also cited by multiple respondents were Q&As with political journalists, candidates or experts; crowd-sourced campaign coverage; and commissioned material from users. A third of the respondents ran user-generated visual content, and two-thirds incorporated users’ Twitter feeds.

Yet most of the editors admitted that this abundance of user-contributed riches played no role in their own coverage; only two said it had any influence at all. “We chased several stories based on audience recommendations,” one of these two editors wrote. The other said participation solicited through photo galleries, polls, and blogs affected decisions about where to assign newsroom resources.

No one relied on users for election results on the night, when editors reported that they obtained their information from traditional sources, including staff and wire reports and

data from election officials. Only one editor reported getting results through social media. Six editors did use "blogs and/or social media from users" for supplemental Election Night information, and three made users' text and photos available on their website. But journalists were the dominant sources for this feature-oriented information, as well: all 15 respondents used text and photos from newsroom staffers, 11 used blogs and/or social media from their journalists, and 10 used journalists' multimedia content.

Was any campaign or election material from users "reverse published" in their legacy newspaper? Eight of the 15 editors said no, and open-ended responses from the remaining seven suggested a broad definition of "users" that encompassed candidates or political experts. Only two respondents indicated that material from ordinary citizens made it into print. One took "mostly wrap-up stories" from Election Night. The other mentioned that a "great many tips" received online were followed up—by journalists—and that political events submitted online became part of a printed political calendar. Photos and letters submitted online also "may have" found their way into print.

Journalists' incorporation of user-provided material about the 2012 campaign and election into their own news decisions, then, appears to have been minimal at most. Most paid little attention to user contributions; the rest used it only in perfunctory ways.

Taking advantage of opportunities to turn users into content promoters, on the other hand, was a more appealing prospect. All the respondents said they offered options for users to personalize and/or share campaign and election content created by the newspaper. Such options included social media feeds, ballot builders, and interactive graphics, such as electoral maps, that users could manipulate. But editors' rationales for offering these features blended civic and commercial goals. They cited synergistic desires to "build engagement and increase page views," or to generate "shared knowledge, SEO value." Similarly, success tended to be measured in traffic data. "That's what the metrics tell me," an editor wrote in explaining why he felt these efforts to be wholly successful. "All-time record traffic despite advent of a strict paywall."

Sources of pride: As in previous years, editors were asked to indicate up to three sources of pride related to their 2012 campaign and election coverage. Their responses overwhelmingly highlighted political content that fulfilled their traditional role as providers of thorough and timely information. Voter guides to candidates and issues—long a staple of newspaper election coverage, though several respondents mentioned online personalization features—were cited by nine of the 13 editors answering the question. Five were proudest of their ability to provide Election Night results quickly. Although several mentioned use of social media, particularly Twitter, other options enabling user input merited minimal recognition.

In explaining their responses, editors stressed the utility of information they provided. "Seriously, there can't be enough said about immediate coverage and instant results," wrote an editor whose top source of pride was live updates. "We often think that readers want these complex stories when in reality, they want to know what's happening at their polling place and who won, especially the night of." Another was proud that "we killed

it. Other media had to cite us and our calls/results that night. Traffic was huge because we've built that expectation that we'd have the goods." An editor who listed a voting guide first said it "cuts to the chase in terms of letting users see their voting choices, the candidates' responses, and their personal, marked-up ballot." Several mentioned that the guides included candidate responses to issue-related questions, creating "a thorough profile" and "a useful public service (that) sometimes produces news."

The provision of useful information that, not incidentally, helped drive traffic to the site was central to the discussion of other online features, too. One editor described the elections home page as "a heavily traveled place for readers to get all their election news in one place," adding that it "became a mainstay in our 'Top 10' pageview lists in the days surrounding the election. I'm proud of it because readers used it." Another highlighted online-only stories that "gave readers reasons to come back to the web during the day and helped fill a healthy appetite for what was happening at the polls."

Discussion of user engagement also was connected to options that involved either visual or very brief content formats. One editor explained that "interactive graphics give readers something they love—the ability to control and decipher information." Not surprisingly, social media were seen as well-suited to user participation. The only editor who referenced social media as his top source of pride described a partnership with a university journalism program in using tweets about a locally staged debate. Another editor proud of his social media use cited its ability to serve dual roles: "Our Twitter feeds were not only effective in informing the public but (became) a popular form of engagement with our readers." A third, who used Twitter to publicize local reactions, said "it wasn't scientific, but it was engaging and a lot of fun."

In summary, even though respondents all offered extensive, multi-faceted opportunities for citizen input, they remained proudest of digital manifestations of their own long-standing self-perception as creators of an informed electorate, their ability to provide "thorough information on all our races and candidates, what people can expect when they hit the polls and where they can vote," as one wrote. Overall, these longitudinal findings suggest that election coverage over time has been marked by a steadfast emphasis on traditional journalistic roles involving the provision of depth, detail, and timeliness. Together, these accounted for nearly 58% of the sources of pride over the four election cycles. Newer options—blogs, multimedia or animation, personalization features—generated an attention blip as they were integrated into election coverage, then a decline as they became commonplace. Table 1 encapsulates these trends.

Table 1: Editors' sources of pride over time

Numbers indicate how many times each type of feature was mentioned first, second, or third as a source of pride. Percentages relate to the total number of features mentioned each year and overall (last column). There were 13 responses to this question in 2012, 31 in 2008, 37 in 2004, and 44 in 2000. Percentages are included here for consistency and comparison despite the disparity in response rates.

	2012	2008	2004	2000	TIMES CITED 2000 - 2012
Depth / detail	17 (45.9%)	28 (32.9%)	34 (39.1%)	38 (40%)	117 (38.5%)
Updated information	5 (13.5%)	12 (14.1%)	12 (13.8%)	29 (30.5%)	58 (19.1%)
Journalist blogs:	1 (2.7%)	18 (21.2%)	16 (18.4%)	-	35 (11.5%)
Multimedia / animation:	2 (5.4%)	15 (17.6%)	7 (8%)	10 (10.5%)	34 (11.2%)
User personalization:	2 (5.4%)	10 (11.8%)	11 (12.6%)	4 (4.2%) [a]	27 (8.9%)
User contributions	3 (8.1%)	2 (2.4%)	7 (8%) [b]	14 (14.7%) [b]	26 (8.6%)
Social media (2012 only):	6 (16.2%)	-	-	-	6 (2%)
Multiplatform (iPad app, 2012 only):	1 (2.7%)	-	-	-	1 (< 1%)
TOTAL NUMBER OF FEATURES listed as sources of pride, per year	**37**	**85**	**87**	**95**	**304**

[a] In 2000, the only personalization option offered was a "candidate match" feature.
[b] In 2004 and 2000, user contributions consisted of forums, chats, and Q&As.

Conclusion

Over a dozen years and four presidential elections, online U.S. newspaper campaign coverage has gained in technological sophistication. As successive clusters of digital tools have been folded into newsroom routines, journalists have become increasingly innovative information providers. But the myriad opportunities afforded by dramatic changes in audience capabilities have been accorded minimal importance. In particular, social changes related to the production and consumption of information by people outside the professional tent—neither journalists nor traditional news sources in such spheres as politics or academia—have continued to butt up against the journalistic perception that informing the electorate is their job and theirs alone.

The findings suggest that while numerous options for users to contribute to political coverage are now widely available, there has not been a corresponding increase in editors' willingness to foreground these capabilities or incorporate them into their coverage goals or decisions. After a small surge of excitement in 2004, as blogs gained ground, most online editors seemed to retreat from an emphasis on content originating outside the newsroom. Instead, they continued to see their own output—in particular, timely hard news—as their most noteworthy contribution to the democratic process.

The first research question involved the extent to which editors have incorporated new capabilities into election coverage in the digital age. The findings suggest an impressive degree of innovation in conveying campaign information generated by the newsroom. By 2012, online newspaper journalists were live-streaming candidate interviews, integrating video throughout coverage, delivering multi-platform content, and more. And despite proliferating competition for readers' attention, they were generating enough use to make their efforts worthwhile from a financial as well as a civic perspective.

The second research question asked about incorporation of new audience capabilities. Here the findings are two-fold. On the one hand, they indicate that newspapers indeed created space online for user input, in line with the innovations of the day, across all four election cycles. By 2012, every editor who completed the survey described opportunities for users to contribute content and to personalize material offered by the newspaper. But in three of the four years considered here, including the most recent one, there was little enthusiasm for the value of this material—few editors even mentioned it as a source of pride or as a component of their goals for the website—and it was only rarely (and then minimally) incorporated into newsroom output.

So the answer to RQ3, about how an increasingly empowered audience might be affecting journalists' news decisions, is: not much if at all. Data from the social media era, 2008 and 2012, offer virtually no indication that what users said or did shaped journalists' choices about the form or content of their campaign coverage. Although editors did mention traffic as a marker of "success," particularly in the post-recession 2012 cycle, that traffic tended to be referenced as a benefit for its own sake. It was seen as a sign that people wanted what the journalists offered and not as an opportunity to offer something more, something different.

This study, then, suggests that journalists are willing and able to be innovative in their own practices, at least to the extent that the innovations are interpreted as enhancing their core role as providers of information vital for the proper functioning of democratic society. They are less willing, however, to accommodate challenges to that occupational turf. This longitudinal study adds to large body of evidence that ceding authority over what they see as their fundamental social role continues to be a bridge too far for many journalists. Over the four data collection periods, covering a dozen years of Internet evolution, the volume and variety of campaign-related material provided by users has soared. Yet asked what mattered most to them—their goals for the website, their key sources of pride—the overwhelming majority of editors in each year consistently cited material they themselves provided. Their emphasis remained on such traditional news attributes as timeliness, as well as an ability to contextualize political information thanks to the unlimited space afforded by the online medium. As successive innovations available to journalists have become routinized and normalized, they have either been put to use in connection with traditional practices or have faded from noteworthiness in editors' eyes.

To conclude: It is unfair to say that journalists are not finding innovative ways to help engage citizens in democratic decision-making. They are. But journalists still give pride of place to their own contributions to the process. The results suggest that at least among the veteran editors who participated in these studies, journalistic values are very deeply held, as are views about what their occupation is all about. Technologically enabled adaptations are appreciated largely because they drive traffic to the newspaper website—where, editors hope, users will linger to absorb the content journalists have labored to provide. Over a dozen years, questionnaire respondents have offered, more than anything, a reassertion of what they see as the civic virtue inherent in traditional journalism roles, products, and practices. The information that citizens really need to be free and self-governing, they are saying, is information that is accurate, trustworthy, and significant. It comes, they maintain, from us, the journalists.

References

Arceneaux, N., & Weiss, A. S. (2010). Seems stupid until you try it: Press coverage of Twitter, 2006-9. *New Media & Society* 12(8), 1262-1279.

Avilés, J. A. G., & Carvajal, M. (2008). Integrated and cross-media newsroom convergence: Two models of multimedia news production – the cases of Novotécnica and La Verdad Multimedia in Spain. *Convergence* 14(2), 221-239.

Bimber, B. (1998). The Internet and political transformation: Populism, community and accelerated pluralism. *Polity* 31(1), 133-160.

Campbell, J. E. (2008). *The American campaign: U.S. presidential campaigns and the national vote* (2nd ed.). College Station, TX: Texas A&M University Press.

Carlson, M. (2007). Blogs and journalistic authority: The role of blogs in US Election Day 2004 coverage. *Journalism Studies* 8(2), 264-279.

Chung, D. S. (2007). Profits and perils: Online news producers' perceptions of interactivity and uses of interactive features. *Convergence 13*(1), 43-61.

Dahlgren, P. (2005). The Internet, public spheres, and political communication: Dispersion and deliberation. *Political Communication 22*(2), 147-162.

Dooley, P. L. (2000). *Taking their political place: Journalists and the making of an occupation*. Westport, CT: Praeger.

Dupagne, M., & Garrison, B. (2006). The meaning and influence of convergence: A qualitative case study of newsroom work at the Tampa News Center. *Journalism Studies* 7(2), 237-255.

Fenton, N. (2010). Drowning or waving? New media, journalism and democracy. In N. Fenton (Ed.), *New media, old news: Journalism and democracy in the digital age* (pp. 3-16). London, UK: Sage.

Gans, H. J. (2003). *Democracy and the news*. New York, NY: Oxford University Press.

Gil de Zúñiga, H., Veenstra, A., Vraga, E., & Shah, D. (2010). Digital democracy: Reimagining pathways to political participation. *Journal of Information Technology and Politics* 7(1), 36-51.

Grossman, L. K. (1995). *The electronic republic: Reshaping democracy in the information age*. New York, NY: Viking.

Haiman, R. J. (2001). Can convergence float? PoynterOnline. Retrieved from http://www.poynter.org/uncategorized/4920/can-convergence-float/

Huang, J. S., & Heider, D. (2007). Media convergence: A case study of a cable news station. *International Journal on Media Management* 9(3), 105-115.

Jacobson, S. (2012). Transcoding the news: An investigation into multimedia journalism published on nytimes.com 2000-2008. *New Media & Society 14*(5), 867-885.

Kohut, A., & Rainie, L. (2000, 3 December). Internet election news audience seeks convenience, familiar names. Pew Research Internet Project. Retrieved from http://www.pewinternet.

org/2000/12/03/internet-election-news-audience-seeks-convenience-familiar-names/

Kovach, B., & Rosenstiel, T. (2007). *The elements of journalism: What newspeople should know and the public should expect*. New York, NY: Three Rivers Press.

Lawson-Borders, G., & Kirk, R. (2005). Blogs in campaign communication. *American Behavioral Scientist 49*(4), 548-559.

Lewis, S. C., Kaufhold, K., & Lasorsa, D. L. (2010). Thinking about citizen journalism: The philosophical and practical challenges of user-generated content for community newspapers. *Journalism Practice 4*(2), 163-179.

Lowrey, W. (2011). Institutionalism, news organizations and innovation. *Journalism Studies 12*(1), 64-79.

Matheson, D. (2004). Weblogs and the epistemology of the news: Some trends in online journalism. *New Media & Society 6*(4), 443-468.

O'Sullivan, J., & Heinonen, A. (2008). Old values, new media: Journalism role perceptions in a changing world. *Journalism Practice 2*(3), 357-371.

Pavlik, J. V. (2013). Innovation and the future of journalism. *Digital Journalism 1*(2), 181-193.

Pew Research Center for the People and the Press. (2012, 15 November). Low marks for the 2012 election: News sources, election night and views of press coverage. Retrieved from http://www.people-press.org/2012/11/15/section-4-news-sources-election-night-and-views-of-press-coverage/

Pew Research Center for the People and the Press. (2008, 31 October.) Internet now major source of campaign news. Retrieved from http://www.people-press.org/2008/10/31/internet-now-major-source-of-campaign-news/

Robinson, S. (2006). The mission of the j-blog: Recapturing journalistic authority online. *Journalism 7*(1), 65-83.

Ryfe, D. M. (2012). *Can journalism survive? An inside look at American newsrooms*. Malden, MA: Polity Press.

Silverman, C., & Tsubaki, R. (2014, 29 January). Verification handbook: Necessary tools for breaking news. Journalism.co.uk. Retrieved from https://www.journalism.co.uk/news/verification-handbook-necessary-tools-for-breaking-news/s2/a555728/

Singer, J. B. (2009). Role call: 2008 campaign and election coverage on the websites of leading U.S. newspapers. *Journalism & Mass Communication Quarterly 86*(4), 827-843.

Singer, J. B. (2006). Stepping back from the gate: Online newspaper editors and the co-production of content in campaign 2004. *Journalism & Mass Communication Quarterly 83*(2), 265-280.

Singer, J. B. (2005). The political j-blogger: "Normalizing" a new media form to fit old norms and practices. *Journalism 6*(2), 173-198.

Singer, J. B. (2004). Strange bedfellows? The diffusion of convergence in four news organizations. *Journalism Studies 5*(1), 3-18.

Singer. J. B. (2003). Campaign contributions: Online newspaper coverage of Election 000. *Journalism & Mass Communication Quarterly 80*(1), 39-56.

Singer, J. B., & Ashman, I. (2009). “Comment is free, but facts are sacred”: User-generated content and ethical constructs at the Guardian. *Journal of Mass Media Ethics 24*(3), 3-21.

Singer, J. B., Tharp, M., & Haruta, A. (1999). Online staffers: Superstars or second-class citizens? *Newspaper Research Journal 20*(3), 29-47.

Smith, A. (2013, 20 February). Digital politics: Pew Research findings on technology and Campaign 2012. Pew Research Internet Project. Retrieved from http://www.pewinternet.org/2013/02/20/digital-politics-pew-research-findings-on-technology-and-campaign-2012/

Smith, A., & Duggan, M. (2012, 9 October). The state of the 2012 election—mobile politics. Pew Research Internet Project. Retrieved from http://www.pewinternet.org/2012/10/09/the-state-of-the-2012-election-mobile-politics/

The State of the News Media 2013. (2013a). The media and campaign 2012: Lessons learned about the media from the 2012 election. The Pew Research Center’s Project for Excellence in Journalism. Retrieved from http://www.stateofthemedia.org/2013/special-reports-landing-page/the-media-and-campaign-2012/

The State of the News Media 2013. (2013b). Newspapers: By the numbers. The Pew Research Center’s Project for Excellence in Journalism. Retrieved from http://www.stateofthemedia.org/2013/newspapers-stabilizing-but-still-threatened/newspapers-by-the-numbers/

The State of the News Media 2013. (2013c). Digital: As mobile grows rapidly, the pressures on news intensify. The Pew Research Center’s Project for Excellence in Journalism. Retrieved from http://www.stateofthemedia.org/2013/digital-as-mobile-grows-rapidly-the-pressures-on-news-intensify/

Weaver, D. H., Beam, R. A., Brownlee, B. J., Voakes, P. S., & Wilhoit, G. C. (2007). *The American journalist in the 21st century: U.S. news people at the dawn of a new millennium*. New York, NY: Lawrence Erlbaum Associates.

Willnat, L., & Weaver, D. H. (2014). *The American journalist in the digital age: Key findings*. Bloomington, IN: School of Journalism, Indiana University.

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Back and forth in time: Online news archives and presence as transportation

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The unprecedented availability of news archives through new media-based outlets (e.g. YouTube, media company websites) enables audiences to engage with content of a different time and place, or possibly re-engage with content first viewed at a previous time of life. This paper examines this recent phenomenon through case study analysis of two such archival presentations – the 2013 CBSNews.com livestream of its 1963 Kennedy assassination coverage, and the YouTube channel of British Pathé – and how Presence theory (Lombard and Ditton, 1997) might explain the bidirectional temporal journey of viewer and content.

Internet-based video streaming provides a new outlet for archival news content that once sat in storage room shelves on reels of aging tape. This content potentially finds new audiences long after its initial purpose as news has passed. The new viewers, however, may be attracted to the archival content for reasons other than historical interest, scholarly research, or nostalgia.

Presence in media, as defined by Lombard and Ditton (1997), may offer an explanation for the use of this content on both ends of the sender-receiver media dipole. Taking an examination of one conceptualization of presence in particular, presence as transportation, we can see the bidirectional quality of online news archives. Not only is the viewer being taken by the content to a different time and place, but also the content—produced and disseminated as news for a selected audience at the time and place of its origination—is transported forward in time to become history and cultural memory in the eyes of new viewers or viewers who are re-engaging with the content for second and subsequent times.

This paper will assess the relationship between new media technologies, news archives, and presence as transportation in explaining the attraction and experience of viewers to archival content made available via websites or video streaming services such as YouTube. Specifically, two case examples—the CBSNews.com online video streaming of its coverage of the assassination of United States President John F. Kennedy in November 1963, and the newsreel archive of British Pathé on YouTube—will be

presented to examine how media presence might work from the perspective of both the viewer and the content. Basing this exploratory research upon case studies is appropriate because “how” and “why” questions are being examined and the subject matter is a contemporary phenomenon—the presentation of archival news content through new media-based dissemination tools—within a real-life context (Yin, 2003, p. 1).

Presence and New Media

In their definitive work on the concept of presence in media, Lombard and Ditton (1997) explain that an enhanced sense of presence is vital to the use, usefulness, and profitability of many newer media technologies. The authors go on to categorize six conceptualizations of presence, including the one of most relevance when discussing archival media content: Presence as transportation. This conceptualization of presence is further divided into three types, which Lombard and Ditton describe as “You are there,” “It is here,” and “We are together” (Concept Explication, para. 7-12). The first two act in congregation to best describe the connection between presence and archival media content.

In the same article, Lombard and Ditton note that “You are there” is “perhaps the oldest version of presence.” Citing authors such as Biocca and Levy, Gerrig, Radway, and Kim, the two explain that the concept of taking audiences to a different time and place permeates almost every form of media, from oral storytelling to television commercials. In a similar fashion, viewing archival television news or newsreel film content could psychologically or emotionally transport the viewer to the time and place of the event being reported.

“It is here” could be described as the inverse of “You are there.” “Instead of transporting the user to a different place, a sense of presence may bring the objects and people from another place to the media user’s environment” (Lombard & Ditton, 1997, Concept Explicaton, para. 10). This type of presence as transportation may be best with which to frame the effects of archival content, originally produced for older, twentieth century-based media formats, being disseminated in newer, Internet-based media formats such as streaming video services. By utilizing new media, companies such as CBS News and British Pathé bring news content to audiences in a different, future time from when the content originally reached audiences as “news.”

Lombard and Ditton explain the centrality of presence to newer media technologies, of which online streaming video is one:

Although these emerging technologies are different in a number of ways, each of them (and many others) is designed to give the user a type of mediated experience that has never been possible before: one that seems truly “natural,” “immediate,” “direct,” and “real,” a mediated experience that seems very much like it is not mediated; a mediated experience that creates for the user a strong sense of presence (1997, Introduction, para. 1).

While streaming video remains a mediated experience at its core, its dissemination through services like YouTube, Hulu, Vimeo, and others results in a reception environment where content choice, time of viewing, and interactive feedback (e.g. comments or ratings on the same webpage) lie within control of the user. When compared to traditional models of broadcast media, particularly television, the overall experience could feel less mediated.

Tied to the "It is here" direction within the presence as transportation concept is the idea of the sender moving the content to the time and place of the receiver. Using a broader definition of media, Foote (1990) describes some of the considerations and complications of transmitting information forward into the distant future with a case example of a U.S. government effort in 1980 to effectively mark areas where underground nuclear waste is buried. Due to the thousands of years required for the radioactive material to decay into less dangerous isotopes, this communicative effort required means of conveying safety information to societies and cultures whose languages and cultures may be vastly different from that of people in the twentieth and twenty-first centuries. The task force created to develop an effective strategy for such a unique communicative endeavor eventually recommended a multimedia approach that included the creation of a universal biohazard symbol. "Taken together," Foote concludes, "these efforts reflect the varied resources societies have at their disposal for extending the temporal range of communication" (1990, p. 383).

In a similar sense, Internet-based streaming video stands as an early twenty-first century tool with which providers of archival film or broadcast content can transport that content from its original medium to one which will reach new (and supposedly younger) audiences. New media technologies like streaming video could be described, in essence, as a different "language" spoken by millennials in contrast to the traditional, terrestrial forms of media familiar to previous generations.

Human fascination with the past could be another key ingredient in understanding audiences for archival news content. Although he was writing nearly one decade prior to the arrival of public Internet access, Lowenthal (1985) tapped into the deeper psychological spurs that drive humans into a search for items and events associated with the past: "Present-day absorption with the past reflects needs that transcend partisan purposes or personal nostalgia" (p. 367). Lowenthal also evokes presence as transportation—12 years prior to the publication of Lombard and Ditton's seminal work—in referring to the transportation qualities of movies and photographs that "plunge us into a vivid past—or bring that past directly into the present—seemingly without mediation" (p. 367).

Lowenthal's words ring true today with the enormously broader access to archival films, images, and television broadcasts afforded to nearly anyone with access to a broadband Internet connection or, in the advent of mobile smartphone technology, a suitable handset within range of a high-speed cellular data network.

Online video streaming, and especially the concept of online video sharing, has not always been a chummy companion of traditional media companies as will be shown by the two case examples here. Gehl (2009), examining YouTube, offers a counterpoint to the notion that new media and old media cannot peacefully co-exist by framing YouTube as an archive, and explains:

Considering YouTube as an archive helps explain the different terms of space and time in Internet video. Again, instead of contrasting this with television or film, we could discuss YouTube in terms of flows of people, much as they flow through any other library or collection. Although these are not precisely the same as archives, studies of museum exhibitions have shown that, despite the best efforts of those who build the exhibitions, people rarely spend much time on each object, and the paths that people take vary wildly [Hein, 1998; Serrell, 1997] (p. 45).

Taking Gehl's argument, traditional media companies making archival content available on new media outlets like YouTube may attract viewers much like a museum. Curating their own experience through the offered online archives brings viewers a sense of presence as transportation into chosen times and places via the content, while also pushing the content into a public awareness it might not otherwise have locked away in storage facilities.

Temporal awareness as it concerns news events or specific programming may be another factor that convinces audiences to seek archival content, and likewise spur media providers into making that content available whether on physical media or as an Internet-based offering. Major anniversaries of events, in particular, may heighten the awareness or stoke efforts to preserve media content relative to that event. Cariani (2011), detailing a painstaking effort to encourage preservation of local television station archives, including locally produced programming from past years, notes "a growing awareness of the importance of local materials that coincides nicely with the 50-year anniversary of many TV stations" (p. 145). The passage of time and the memories of viewers and those involved with the production of such programming may help create fertile ground for commemorative media productions.

Live from 50 Years Ago: CBS and the Kennedy Assassination

CBS News activated this very concept in a unique online special in November 2013. Commemorating the fiftieth anniversary of the assassination of United States President John F. Kennedy, the network took the wraps off its full, live coverage of the event and aftermath from November 22-25, 1963, digitized it and put it up for live streaming video viewing at the exact same hours and dates 50 years into the future from the actual event.

By streaming the exact same coverage of those four days in 1963 to viewers in 2013, the network provided more than just a window in time, in a sense. Placed into the theoretical framework of presence as transportation, it can be argued that the time-warping live stream presented online viewers with a psychological and emotional experience of the event—widely agreed to be one of the most pivotal in United States history—even to

those who were too young to remember the actual event or were not yet born. For those who did remember the actual event in 1963 and were old enough to mentally process the media coverage that took place, the online video streaming may have provided a psychological tunnel back to that time, accompanied by reconstructed memories of where they were and who they were with when viewing the content originally over television broadcast.

Published academic research has not yet appeared to offer an in-depth analysis of CBS' live stream of its Kennedy assassination coverage or audience effects of that video stream. The approach of the fiftieth anniversary of Kennedy's assassination, however, yielded a large number of newspaper, magazine, and online articles on the significance of the event in American history, as well as advances about CBS News' plans to live stream its exact four-day coverage from November 22-25, 1963, in real time. Some media outlets commented on the impact of the 1963 coverage itself as being a watershed moment for television news.

Noting that it had been only two months earlier that the three television networks at the time—CBS, ABC, and NBC—had expanded their nightly newscasts from 15 minutes to 30 minutes, Sneed (2013, para. 2) wrote "Kennedy's assassination set a new standard for how breaking national news stories could be delivered on television, at a coverage level that would go unmatched until the terrorist attacks on the World Trade Center in New York in 2001." Small wonder, then, that CBS News would seize the opportunity to broadcast such pivotal content in its entirety on a medium that has now transformed television in a different way.

A different interpretation of presence can be found by considering the landscape of television news coverage in the early 1960s to the multi-platform, digital and mobile reality of 2013. Gillmor writes that the contrast in the state of news media between 1963 and 2013 warranted watching the CBS live stream apart from the historical significance of the content:

In 2013 the CBS web stream, and the way the company used it, came in a vastly different context. It was just one of many fast-moving situations in the media business—most involving enterprises that weren't in the realm of anyone's imagination 50 years ago—that we saw this Nov. 22-26. They included the sale of a web news startup to another startup; an apparent shakeup at a major business news and information service; and the hiring of a TV superstar by a web company that, by today's standards, is itself almost old media (2013, para. 4).

In that context, viewers of the live stream on CBSNews.com were experiencing a type of media presence that, ironically, consisted of the news media itself, one of television finally usurping print as the fastest and most reliable medium for breaking news and young journalists like Walter Cronkite, Bob Schieffer, and Dan Rather coming of age and heading onto the path that would make them, and others, media icons in the decades to follow (Thornton, 2013).

Image 1: CBSNews.com's livestream of the network's breaking 1963 coverage of the assassination of President John F. Kennedy included the initial news bulletin as read on-air by Walter Cronkite. Source: Screenshot of the video "CBS News' first bulletin on JFK assassination." Retrieved December 5, 2014, from http://www.cbsnews.com/videos/cbs-news-first-bulletin-on-jfk-assassination/

From the standpoint of older viewers, it should also be noted that the presentation of the CBS coverage of the Kennedy assassination as an exact, temporal replica from 1963 may have brought about another conceptualization of presence in media, that of presence as immersion (Lombard & Ditton, 1997). Those viewers who were old enough in November 1963 to mentally process the network's coverage of the event and aftermath conceivably could have used the 2013 streaming video of the same coverage as a means to reconstruct memory and engage in an online version of collective memory. Collective memory is formed by social influences and content largely dictated as experience through social structures such as government and family (Halbwachs, 1992, p. 51). Citing Tuchman (1978), Severin and Tankard (2001) present the idea of news as a social construction of reality; therefore, it could be argued that news provided through mass media exists among the social entities that help shape collective memory. Re-engaging with news broadcasts initially seen and heard at the actual time of the event thus may enact the psychological aspect of presence as immersion (Lombard & Ditton, 1997, Concept Explication, para. 13-15) as well as that of presence as transportation, bringing the person back to the setting (e.g. the room of the house wherein the television set transmitted the breaking news and subsequent coverage) of

the original experience.

Given the generally agreed-upon historical and social portent of the Kennedy assassination, one might think any component of a 50-year observance of the event would warrant massive publicity in advance. Interestingly enough, however, CBS gave the live video stream of its November 1963 coverage of the assassination “minimal publicity, though it really did make for some extraordinary Web viewing” (Bednarski, 2014, para. 8). Viewership figures of the four-day live stream, or any part of it, have not been made publically available. However, CBS has made highlights of its 1963 Kennedy assassination coverage available on a DVD for purchase, suggesting that there remains an audience for the archival content even after the anniversary-tied streaming video event. In addition, just weeks after the Kennedy assassination coverage on CBSNews.com, the network announced a new business unit known as CBS News Live Experiences to utilize the network’s news archives for special multimedia presentations tied to historical events (Bednarski, 2014). This decision suggests the network had enough viewership and response to its Kennedy assassination coverage in November 2013 to warrant similar efforts on major anniversaries of other news events going forward, and perhaps validating the effectiveness of presence as transportation when archival news content hits new media.

From Newsreel to YouTube: The British Pathé Archive

British Pathé is the archival descendant of Pathé News, one of the major producers and suppliers of cinematic newsreels for much of the twentieth century. The company’s beginnings go back to its namesake, French inventor Charles Pathé, credited with pioneering the development of the moving image in the 1890s. The company began producing newsreels of major events in the United Kingdom and other parts of the world in 1910, and by the 1930s had added production of what it called “cinemagazines,” covering culture, entertainment, and women’s issues. The rise of television news in the 1960s signaled the end for cinematic newsreels as a primary source of news, and Pathé ceased production of newsreels in 1970 (“About us,” 2013).

After starting a YouTube channel in 2011 to feature some of its newsreel content, British Pathé in April 2014 announced through its official blog that it was making its entire collection—about 85,000 films spanning 1896-1976—available on YouTube. In announcing the decision to make YouTube one of the archive’s primary online access points, British Pathé General Manager Alastair White stated, “This archive is a treasure trove unrivalled in historical and cultural significance that should never be forgotten. Uploading the films to YouTube seemed like the best way to make sure of that” (“British Pathé releases 85,000 films on YouTube,” 2014). Because British Pathé’s primary focus in its past existence was newsreel content to be shown in cinemas and theaters, largely in the days prior to the dominance of television as the source of news for most first-world households, a new media outlet like YouTube has arguably given the content new life through a venue unavailable in the late twentieth century.

Image 2: British Pathé has made its entire film library, more than 80,000 videos, of news and events throughout the 20th century available for free viewing on its official YouTube channel. Source: Screenshot of the video "Welcome to British Pathé." Retrieved December 5, 2014, from https://www.youtube.com/watch?feature=player_profilepage&v=jd8_aAn8cdE

White's comment signifies the technological and cultural arrival of YouTube as both a method of reaching new audiences with the archive's library of films and as a vehicle for digitally preserving the content of those films. The same comment also suggests that users of YouTube should look to British Pathé and its archive for a definitive film record of major events and cultural information pertaining to the world for much of the twentieth century, a self-appointment as authoritative resource that is echoed in the main channel's introductory video with "If it happened, we were there" ("Welcome to British Pathé," 2014).

With such a vast collection of film being made available, curation becomes vital to directing YouTube viewers to the type of content they seek. British Pathé addresses this objective by sorting content into topical "channels," such as "War Archives" and "Sporting History," as well providing short, narrated compilation videos, such as "People Who Changed the World" and "Ten Tragedies Caught on Film," for viewers seeking shorter, more generalized video content ("British Pathé," 2014). Although much of the available content on the YouTube channel is from a British perspective, viewers can find archival content from the United States as well. The American arm of the Pathé newsreel company, which was known as Warner Pathé after Warner Brothers purchased it in 1931, eventually had its archive merged back into the British Pathé holdings. ("About British Pathé," 2013). Therefore, while a viewer can find original newsreels documenting several FA Cup (soccer) finals, the newsreel depicting the 1940 Rose Bowl game also has a home in the same archive.

When viewed through the lens of presence as transportation, much of the British Pathé archives might appeal not only to older generations and history buffs of all ages, but also to those curious about a news dissemination process prior to the time television news broadcasts came to the media forefront. Particularly with the newsreel excerpts littered throughout the company's YouTube channel and its own website, the accompanying music and large, sometimes-artistic titles announcing the event or subject may give the streaming video viewer a sense of what it was like to receive news from around the world while sitting in a darkened movie house awaiting whatever might be the feature film of that evening. Taking the opposite approach within presence as transportation, the British Pathé videos are moving the sights, sounds, and societal and cultural nuances of various years in the twentieth century into a distinctively twenty-first century viewing environment. This may enable viewers of the content, particularly young viewers, to gain a more thorough understanding of differences across a broad span of time. In essence, warfare back then did not look the same as it does now, and cars and fashion looked much different as well. The overarching effect is one of letting viewers pick and choose a time and place with which to engage, either in historical interest or memory, or both. British Pathé also produces "list" videos for its YouTube channels, repurposing archival content in short video packages that center on a particular theme of cultural interest, such as memorable sporting events or obsolete occupations.

With such a vast array of archival content to be found among the British Pathé content on YouTube, it is interesting to examine exactly what topics draw the strongest viewership. Despite the fact that only a portion of the videos now available have been on the channel since its inception in 2011, a select few have already garnered more than 1 million views as of December 2014. Taking the top 20 viewed videos of British Pathé's YouTube channel as of the same date, we find exactly half are content depicting tragedies and disasters, including one compilation video.

Understanding why long-ago deaths caught on film—one among the most viewed videos took place in 1912—should capture the curiosity and attention of YouTube viewers speaks to the presence-based transportation of that content into a time and culture when deaths captured on film or digital video are more commonplace, and more likely to be shared online. Buchan, Gibson, and Ellison (2011) explain this phenomenon:

In the twenty-first century West, death's presence to sight and feeling is narratively framed and given to experience predominantly through the technology of the camera. Indeed the camera, its ownership and usage amongst a mass global population has reorganized where and how scenes of dying and death are seen and who or what makes this possible (p. 12).

The same authors note the cultural significance of celebrity deaths (including the Kennedy assassination) as public spectacle and cite YouTube as a popular medium for displaying video chronicles of death and the dying process (pp. 12-13). As if testimony to that point of analysis, the British Pathé video of the 1997 death of Princess Diana in a car accident has garnered just less than 1 million views as of December 2014.

However, the most viewed video on the British Pathé YouTube channel in its first three years of existence is a patch of two highlight reels of bodybuilding competitions, one in Cologne, Germany, in 1966, and the other being the Mr. Universe competition of 1969. The draw? Both short clips feature a young, unknown Arnold Schwarzenegger as a contestant. The presence-based attraction of this video centers on viewers being able to get a glimpse of Schwarzenegger long before he became an actor best known for Hollywood blockbuster action films in the 1980s and 1990s. While the celebrity factor would certainly drive up views, it is interesting to note that this bodybuilding competition video currently tops the list by more than 600,000 views over the second most-watched video, the aforementioned compilation of tragedies caught on film ("Arnold Schwarzenegger Wins Mr Universe," 1969).

Discussion and Future Research

Through the two case examples analyzed in this paper, we have seen the ability of new media to create a bidirectional pattern of media presence through archival content. Viewers of generations outside of and forward from the time of the content's original creation and dissemination are able to engage with that content and experience a presence-based transportation to the time and place of the content. However, new media also acts in a transporting fashion for the content, taking it from the ages of the cinematic newsreel and the early days of broadcast television journalism to a media technology—in this case, online streaming video—associated with a future time period, from the perspective of the original dissemination of the content.

Alongside giving archival content a new home, new media also provides the content with a potential marketplace, although just how profitable a marketplace remains to be seen. Still, CBS followed up its real-time video streaming of its news coverage of the Kennedy assassination with the offer of a DVD collector's set featuring highlights of the same coverage. British Pathé allows free viewing online of its archives, but continues to make money through licensing use of the content for professional purposes. Both companies exhibit the fact that their archival news footage still carries some marketplace value to at least niche audiences interested in seeing or using the content.

Profitability for content owners notwithstanding, Lowenthal's analysis of human desire for engagement with the past marches on as the technologies to find that past continue to change. The fascination with news archives in general carries on with cheaper, simpler methods of digitization of such content and outlets like YouTube, blogs, and social media like Facebook and Twitter, where media content or links to it can be shared daily. The Internet Archive itself offers a sumptuous selection of clips from television newscasts from 2009 onward, indicating that the concept of news as a window into the past is unlikely to fade anytime soon. Additionally, the move toward convergence journalism by traditional print media means that there are digital multimedia archives possible for these companies to repurpose at various points in the future.

Although this paper presents an examination of the usefulness of archival news within

new media technologies and an attendant theoretical framework of presence, future research should attempt to analyze audience effects, both psychological and emotional, of engagement with archival news content. Particularly in the matters of collective memory and memory reconstruction, it would be interesting to see if effects could be measured, quantitatively through clinical studies and post-experiment surveys or qualitatively through focus groups, among people viewing archival news content they had initially viewed at an earlier time in life.

Exploring this suggested path of research, however, may also point to a potential pitfall as to the long-term value of archival news. Although the general historical value of archival news film and video is unlikely to deteriorate, we should remember its audiences are human beings who pass on from life and take their memories of news events with them. Questions are then raised about the potential effects, wider interest in, and marketability of archival news content once its witnesses through the original media coverage are all gone. Cohen, examining this very mortal aspect of memory and personal significance of archival news content, states about the Kennedy assassination, “Fifty years from now, we’ll still mark the occasion, only it will be something like this: ‘Last Surviving Witness to Kennedy Assassination ...’ The river of history thus ever flows” (2013, para. 4).

Then there remains the question of what future media will be in place, how they will work, and what appearances they will take. Although streaming video seems to have risen to the role of major media technology, thriving not only in homes and businesses but also on mobile devices like tablets and smartphones, we cannot assume such a paradigm will continue to exist later this century or beyond. To draw a parallel with the fiftieth anniversary presentation of CBS’ 1963 coverage of the Kennedy assassination, one wonders what technology might exist and how digital news archives will be presented of the September 11, 2001, terrorist attacks in the United States when its fiftieth anniversary arrives in 2051.

What we can confirm approximately 15 years into the twenty-first century is that the development of broadband Internet access, and new media technologies like streaming video, has provided news organizations with a conduit to feature their archival content—and, perhaps, a reason to preserve it. More than ever before, the past is not very far away. Even more exciting may be that it takes only a mouse click or a tap on a touchscreen to get there.

References

About British Pathé. (2013). Retrieved December 9, 2014, from https://britishpathe.wordpress.com/about/

About us. (2013). Retrieved December 9, 2014, from http://www.britishpathe.com/pages/about
Arnold Schwarzenegger Wins Mr Universe. (1969). Retrieved December 3, 2014, from https://www.youtube.com/watch?v=c7Iaz_r2t-g&list=UUGp4u0WHLsK8OAxnvwiTyhA

Bednarski, P. J. (2014). I want to hold your digitals: CBS starts 'experience' cross-platform unit around Beatles' debut on Sullivan. Retrieved December 8, 2014, from http://www.mediapost.com/publications/article/217825/i-want-to-hold-your-digitals-cbs-starts-experien.html

British Pathé. (2014). Retrieved December 5, 2014, from https://www.youtube.com/user/britishpathe

British Pathé releases 85,000 films on YouTube. (2014, April 17). Retrieved from https://britishpathe.wordpress.com/2014/04/17/british-pathe-releases-85000-films-on-youtube/

Buchan, B., Gibson, M., & Ellison, D. (2011). Reflections on the Death Scene. Cultural Studies Review, 17(1), 12. doi: 10.5130/csr.v17i1.1970

Cariani, K. (2011). AMIA's local television project. *The Moving Image: The Journal of the Association of Moving Image Archivists,* 11(1), 139-145. doi: 10.5749/movingimage.11.1.0139

Cohen, A. (2013, November 18). How to watch the Kennedy assassination coverage as it happened. *The Atlantic*. Retrieved December 3, 2014, from www.theatlantic.com/national/archive/2013/11/how-to-watch-the-kennedy-assassination-coverage-as-it-happened/281568/

Foote, K. E. (1990). To remember and forget: archives, memory, and culture. *The American Archivist*, 53(3), 378-392. doi: 10.2307/40293469

Gehl, R. (2009). YouTube as archive: Who will curate this digital Wunderkammer? *International Journal of Cultural Studies*, 12(1), 43-60. doi: 10.1177/1367877908098854

Gillmor, D. (2013). A half-century after JFK solidified TV's dominance, a weekend highlights our messy but diversifying media ecosystem. Retrieved from http://mediactive.com/2013/11/26/a-half-century-after-jfk-solidified-tvs-dominance-a-weekend-highlights-our-messy-but-diversifying-media-ecosystem/

Halbwachs, M. (1992). *On collective memory*. Chicago, IL: University of Chicago Press.

Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated Communication*, 3(2), 0-0. doi: 10.1111/j.1083-6101.1997.tb00072.x

Lowenthal, D. (1985). *The past is a foreign country*. New York, NY: Cambridge University Press.

Severin, W. J., & Tankard, J. W. (2001). *Communication theories: Origins, methods, and uses in the mass media* (5th ed.). New York, NY: Longman.

Sneed, T. (2013, November 14). How John F. Kennedy's assassination changed television forever. *U.S. News and World Report*. Retrieved December 3, 2014, from http://www.usnews.com/news/articles/2013/11/14/how-john-f-kennedy-assassination-changed-television-forever

Thornton, W. (2013). Shadows of a distant, dark weekend, viewed through a box. *Brilliant Disguises*. Retrieved December 9, 2014, from http://brilliantdisguises.blogspot.com/2013/11/shadows-of-distant-dark-weekend-viewed.html

Welcome to British Pathé. (2014). Retrieved December 5, 2014, from https://www.youtube.com/watch?feature=player_profilepage&v=jd8_aAn8cdE

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed. ed.). Thousand Oaks, CA: Sage Publications.

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Getting my two cents worth in: Access, interaction, participation and social inclusion in online news commenting

Fiona Martin

Online news commenting is an economically and politically important form of participatory journalism, but it is less clear to what extent it is socially inclusive. Building on Nico Carpentier's model for understanding media participation, this international comparative study uses data analytics and content analysis to investigate commenting access and interaction in the top news websites from the U.S., U.K. Australia and Denmark. It finds that only 55% of these sites host in-house, moderated, everyday news commenting. It also finds a gender imbalance in high engagement sites, where women make up at most 35%, and as low as 3%, of commenters.

Introduction

In the past decade online news commenting has been recognized as an important form of audience engagement, content development, cultural and political participation. The New York Times Innovation report (2014, p.51) notes that digital native publications like the Huffington Post have built business models around commenting that provide insights into what their users think, read and share. Editorial decisions are being increasingly shaped by user input and social analytics (Viner, 2013). In media policy circles user-created content has been seen as a measure of digital citizenship, media diversity, and cultural innovation (Turner Hopkins, 2013).

However commenting's relationship to social inclusion and voice diversity needs more critical examination. Despite widespread social media use, internationally less than 20% of online news consumers said they commented on news websites. Twenty-five per cent or less commented about the news on social media (Newman & Levy, 2014, p. 73). There are also early indicators of a gender bias in news comment participation (Pierson, 2014) and information and communications researchers have also begun to question the accessibility of online news participation for those with disabilities (Hollier & Brown, 2014; Khan, Iqbal & Bawany, 2013).

Yet the broader inclusiveness of commenting systems remains largely assumed and

unchallenged—perhaps because of the range of contributory technologies that the news media now offer, from branded social media channels and comments sections, to annotations, forums and special event chat (see Braun & Gillespie, 2011; Singer et al, 2011; World Editor's Forum, 2013). In this respect Dan Gillmor's (2004: xxiv) case that the news media need to develop journalism as a "conversation" has, a decade later, become a truism of contemporary news publishing, whether or not reporters actually respond to user remarks.

This paper explores how effectively a sample of the world's top news media sites structure social inclusion in news commenting, and where they fall short. It investigates the opportunities for regular, habitual news commenting provided by the 40 most popular online news services in the United States, United Kingdom, Australia and Denmark. It then presents a big data content analysis of in-house news commenting on those news sites with a stated interest in user engagement. This research is based on data captured over three months from 15 publications, including The New York Times, The Guardian and The Sydney Morning Herald, and examines interaction in terms of site scale, scope and distribution of commenting, as well as gender inclusion.

The paper first proposes a model for investigating the significance, forms and scope of media participation and its relationship to social inclusion, a notion key to social equity policy in the countries studied. It then argues for the study of in-house news commenting alongside social media participation. The research design, which includes computational data analytics, content and textual analysis sets out an integrated approach to examining accessibility and participation in high engagement commenting systems. This research suggests lower than expected levels of in-house commenting accessibility, marked differences in interaction and participation among international, national commercial and public service media and regional publishers and, worryingly, indicates very low engagement by commenters with female user names.

Media Participation and Social Inclusion

This research is part of a three-year Australia Research Council funded Discovery project, which aims to investigate the best practice conditions for hosting and moderating productive, inclusive commenting in global news media forums. This module assesses whether users can freely and habitually comment on generalist online news, and how participation is structured in these commenting systems.

While media participation has a long, rich history beyond the Internet (Griffin-Foley, 2004) journalism academics' interest in the concept has centered on user-generated content or citizen journalism and the civic role of online news media (Barnes, 2013; Borger et al, 2013). Borger and her colleagues conclude that the bulk of this literature critiques industry struggles to encourage and facilitate participation, rather than examining how users experience it. Participatory studies, they note, also have a strong interest in analyzing democratic practices, but are largely disappointed by online journalism's failure to live up to its radical political potential.

Rather than bemoaning the apparent low levels of news participation and blaming passive audiences or unresponsive journalists, this research takes a critical Internet studies interest in exploring the structural, social and cultural barriers to contribution. It aims to uncover commenting trends in different news media sectors or platforms that might highlight forms of exclusion. It also seeks to reveal factors common to participative systems that might constrain or enable public commenting on the news. In this it takes up Graham's (2013) challenge to reconceive journalism's civic role online, extending it to the hosting and facilitation of public commenting and debate. To understand why someone might comment on the news, we need to explore not only their motivations and psychology, but what type of opportunities they are offered and what problems they might encounter in taking them up.

In the 2000s media participation has been a topic of interest to policymakers across Europe, the United Kingdom, Australia and other Western countries. Social inclusion policies seek to ensure all citizens have access to the opportunities and services they need for full participation in so-called "information societies." Digital citizenship research emphasizes the benefits of media interaction and content creation in civic engagement and problem-solving (Cammaerts & Carpentier, 2005). A European Commission report on e-inclusion included content production and personal expression in online political communication as two of its digital social inclusion measures (Bentivegna et al, 2010). Until recently Australia's federal social inclusion agenda aimed to support cultural and linguistic media diversity (Australian Government, 2013) a factor regarded as critical for the country's many migrant and refugee communities. Social inclusion has not been widely adopted in U.S. policy circles, although it is attracting research and political interest (Bintrim et al, 2014; U.S. Department of State, 2014). However the principles have been raised in debates about racism and sexism in online media coverage, for example following the Ferguson riots and #Gamergate.

Digital divide research has shown us online exclusion is partly a problem of access to speech rights, technology, and skills (Van Dijk, 2008) and partly a question of motivation. Recent media studies also suggest inclusive digital media strategies need to recognize potential participants, attend to how discussions could be better hosted and consider user obligations to listen and respond to others in a conversation (Ewart & Snowden, 2012; Penman & Turnbull, 2012). Graham (2014) asks how online journalists can better facilitate and respond to comments. Yet to some extent this participative media research, important as it is, pre-supposes that the material conditions for media participation are already in place.

In the meantime news media are debating whether to host comments or to respond to user interaction. Many news publications have suspended comments in response to racist and personal attacks (Hare, 2014; Trygg, 2012), or domination of threads by "fringe ranting and ill-informed, shrill bomb-throwing" (Newman, 2014, par 5). A survey of 104 newspaper organizations found that while 93% had enabled in house or social media hosted comments, staff from one-third of sites did not participate in the threads because of time constraints or objectivity concerns (World Editors Forum, 2013). Others felt commenting sections were users' space.

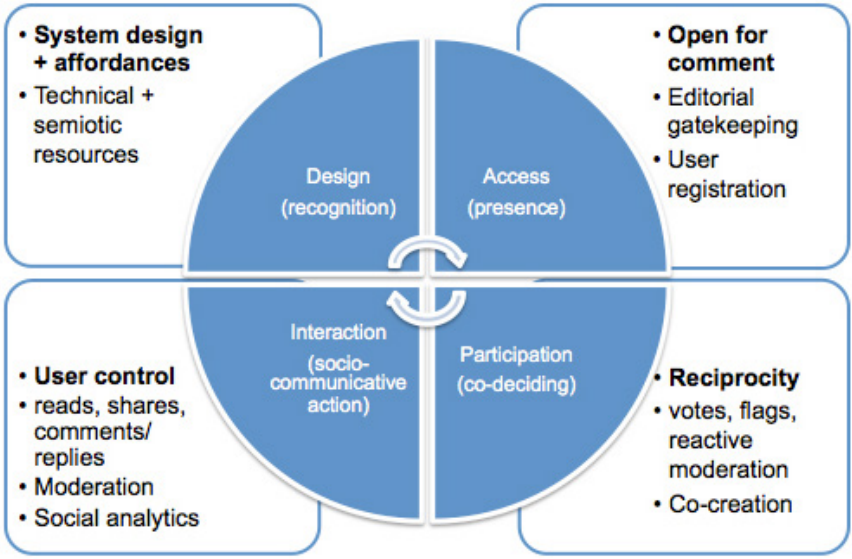
Carpentier (2011) proposes that most media interaction does not qualify as participation in the sense of offering users the chance to shape the system, their role in it, or the content that it produces. He argues that critical participatory analyses need to investigate models that enable richer forms of user co-creation and involvement in news production, without suggesting the symbolic annihilation of professional (elite) editorial roles. The object is, he says, to "transform these roles in order to allow for power-sharing between privileged and non-privileged (or elite and non-elite) actors" (2011, p. 26) and to diversify the societal identity of journalism "so that the processes and outcomes of media production do not remain the … territory of media professionals and media industries" (2011, p. 26).

In Carpentier's model there are three aspects to media participation. Access to participative systems and interaction with documents or other users and journalists, are the "conditions of possibility" for participation (2011, p. 28) but have less political force. This is because users have little power to determine when they can contribute, and how their conversations and forms of co-creation with journalists are structured. They have less input into the everyday decision-making that shapes editorial and regulatory processes. Full participation however involves forms of "co-deciding" on the reporting and publication of content or the governance of interaction and so shapes media systems.

In this study access involves establishing a presence on commenting platforms—having the capacity to register to comment and to find comments sections. Interaction includes all forms of human/system activity and social relations. Co-decisive participation is illustrated where commenters can rank comments, flag abuse or errors, decide which contributions will be incorporated into stories, or help develop and apply moderation policy.

Carpentier's model overlooks one key aspect to participation—system design. As Weber (2013) notes, online news services can delimit discursive participation simply by positioning content in the first visible region of a webpage, or 'above the fold'. Inclusive interaction design recognizes diverse users as potential participants (for example, using text rather than image icons in signalling when comments are enabled on stories) and responds to changes in social relations (Martin, 2012). Thus recognition is another condition of possibility for news commenting. Figure A. sets out this expanded version of Carpentier's media participation model.

Figure A. Four elements of online media participation, after Carpentier (2011)



Following Carey's (1989) ritual view of communications, if news services want to increase inclusion in participation they need to design systems that embed opportunities for access, interaction and content co-creation into users' everyday experiences of news, and produce shared communicative styles, signs and standards for commenting systems. Regular engagement with news commenting supports the enactment of assumed social roles and the building of ties between regular contributors, moderators and even (though rarely) journalists. It also cements brand loyalty, measured in return visits, time on site and other engagement indices (World Editors Forum, 2013).

Social media commenting and news sharing have assumed prominence in recent online news research (see Hampton et al, 2014) but this study focuses on in-house commenting due to its possibilities for more effectively governed, pseudonymous interaction. Social media may seem a low cost, low barrier, high control option for commenting users are exposed to unmoderated, unexpected hostility, abuse and provocation, establishing a cognitive barrier to participation—particularly for women, who are subject to "more bullying, abuse, hateful language and threats than men when online" (Bartlett et al, 2014, p. 3). Social media platforms are hard for publishers to govern as comments can only be post-moderated, dashboards offer few governance options and user accounts cannot be easily verified.

Social media users can also be deterred from speaking freely by privacy concerns and

peer pressure. A Pew Internet survey of U.S. adults found that social media in the main did not provide alternative channels for discussion of the Snowden-NSA revelations (Hampton et al, 2014). People were unwilling to post to Facebook or Twitter about the issue, less willing to post on it than to discuss it face to face, and less willing to share their opinions online if they thought their social network might disagree with them, entering a "spiral of silence." This reticence is not surprising given corporate monitoring of employees' (and potential employees') social media accounts.

So social media provide users naïve inclusivity, accessibility without governability, interaction and visibility at the price of ongoing surveillance. They are a complement to, rather than a substitute for, professionally mediated commenting.

Research Design

Based on the media participation schema discussed above, this study involved three stages:

1. A platform access study of regular commenting opportunities in the most trafficked news media sites in the United States, the United Kingdom, Australia and Denmark.

2. A big data analysis of the scale and scope of interaction in engagement-focused news sites.

3. Content analysis of gendered user names based on the top 100 commenter data from Stage 2, to explore participation bias.

The study originally sought to examine commenting in the top 40 most trafficked news sites in the United States, the United Kingdom, Australia and Denmark. The United States and United Kingdom are diverse markets with globally important brands such as Huffington Post and Daily Mail that invite international, cross-cultural interaction. U.S. media companies have also played a significant role in online publishing and software innovation. The U.K.'s BBC and The Guardian have been leaders in developing public service oriented participatory systems. In contrast Denmark and Australia are small, highly concentrated markets, where online media tend to adapt, rather than innovate, participatory technologies. Denmark, a politically liberal country, has a surprisingly closed participatory news landscape with a growing dependence on Facebook interaction, while Australia has comparatively diverse, open participatory news environments, supporting a more geographically dispersed national population. As of early 2015, Australia has at least four new independent, daily generalist online news publications, all launched in the past decade: Crikey, New Matilda, The New Daily and Independent Australia. Denmark's online news services were all based on legacy publications.

For this first section of the study, a list of the top 10 online news services in each country (n=40) was assembled based on publicly available audience metrics from reliable measurement sources, including Comscore, Nielsen, eBiz/MBA, Quantcast and Danske Medie Research. The sample was compiled first in November 2013 and then revised

in late July 2014. The homepage and several news stories were scanned for evidence of news comment sections, forums, news blogs and social media channel promotion. The social media channels promoted on the homepage were noted, for an indication of primary interactive focus. Commenting systems were examined for paywalls, third-party branding, or other evidence of services using turnkey management platforms such as Facebook plug-ins. The results of the study can be seen in Table 1. The services are not presented in order of traffic ranking due the difficulty of reconciling different audience metrics and the tendency of ratings to vary slightly from month to month.

The second part of the study involved a big data study of commenting scale and scope. This examined a smaller sample of websites, five from each of three countries, which had a stated interest in best practice engagement and nominations for online news excellence and innovation awards (Online Journalism Award, British Journalism Awards, Walkley Awards, Webbys). The sample included one newspaper, one broadcast organization and one digital native publisher in each country group in order to capture medium specific and platform related differences. A mix of international, metropolitan and local/rural publications was included in each country group. Finally an attempt was made to examine sectoral differences, with the inclusion of commercial and public service sites. The Stage 2 group included seven publications from the initial set, and eight new titles.

The publications analyzed were: in the United States, The New York Times, The Washington Post, Huffington Post, Texas Tribune, Orange County Register, PBS (Newshour); in the United Kingdom The Guardian, Daily Mail, Have Your Say (British Broadcasting Corporation, BBC), Liverpool Echo and The Conversation; in Australia, The Sydney Morning Herald, The Drum (Australian Broadcasting Corporation, ABC), The Conversation, the Illawarra Mercury and the Northern Territory News.

Some anomalies occur due to an absence of directly comparative news sources. In the United Kingdom where legacy news dominates the media landscape, it was not possible to find a digital native generalist news provider. The Conversation, an Australian non-profit publishing academic news features, analysis and opinion, which now has a U.K. edition, was substituted. In the United States, the Orange County Register was also added to provide a Facebook real-name commenting system comparison. In Australia, where two publishers control nearly 90% of the daily print news market, News Corporation's Northern Territory News was added to examine participation in a hybrid local/metropolitan site. The Danish sites were not included due to the low number of sites enabling in-house commenting on news stories, lack of independent verification of best practice engagement and technical difficulties in capturing content for the data analytics stage.

The findings are necessarily qualified given the small sample from each country, but are indicative of trends that require further research given the internationalization of online news. The number of locally franchised, international brands in the sample (Mail Online, Guardian, Conversation), the tendency for online news users to consume titles outside their geographic market, and differences in country demographics made national comparisons questionable and so these are not represented.

The data analytics approach used produced a machine-readable corpus of comments, alongside full story data and thread metadata. The data was scraped from the homepages, or identified subpages of each news service, and where necessary sourced from paginated comments archives. The software running the scripts was WebHarvest v2, an open source Java-based application using processors that will accept HTML or JSON data and return valid XML. As the websites had idiosyncratic information architectures, customized scraping scripts had to be developed and run for each site. The processors first captured the story URL. Then three days after publication the story content and comments were harvested into a standard XML structure. WebHarvest, in combination with Chrontab (the ubiquitous Linux command scheduling tool), enabled batch execution of harvesting scripts. The data was captured from June 16th to October 5th 2014.

There are always caveats to data analytics exercises of this scale and possibilities the regularity of the dataset may have been comprised during the collection period by unobservable changes to editorial practices, workflow, the interface or the back end systems supporting these news services. However the resulting corpus, which includes over 9 million comments, provides a robust representative sample of news participation. A sample of the collated data is available as a hyperlinked archive, with the files downloadable here: *https://drive.google.com/folderview?id=0B2Rx_VeaU7ZTXy1halc3dW9JSTg&usp=sharing*

Commenting participation was then calculated, tabulated and graphed in terms of scale of commenting, number of commenters and stories opened for comment. Lists of the top 100 commenters were generated, with evaluation of their total original posts (root comments), no of replies generated, average number of replies and most commented stories, as shown in Table 1 below.

Table 1. Sample data archive excerpt: top commenters summary, The Guardian

guardian commenter summary

Study period = week 25 to week 40

Total commented stories	11907
Total comments (root):	1062944
Total comments and replies	3273330
Average number of replies (rounded)	3

Commenter	threads	ttl replies	ave replies	threads with replies	most replies
1. Alice Ponomareva	924	2462	3	524	27
2. diddoit	728	1405	2	417	30
3. efreelittlehelps	647	483	1	214	22
4. MrRussels	613	2369	4	458	114
5. Gooner67	546	1314	2	368	32
6. AlexRussia	545	1787	3	390	25
7. DELewes	536	2461	5	450	32
8. traineeanarchist	521	467	1	199	21
9. Kal El	515	2124	4	370	74
10. ID7776906	468	803	2	202	26
11. wardropper	412	488	1	174	14
12. Lion Prey	410	915	2	223	73
13. Hottentot	397	589	1	209	22
14. jimbog	389	717	2	209	16
15. JonnyNoone	353	361	1	127	35

The final step was to examine the commenter summaries for evidence of social inclusion markers. Due to resource constraints, platform differences and variable user identification standards it was not possible to conduct a comparison of user profile demographics. Many commenters adopted pseudonyms and most did not create searchable profiles. Some may provide false information. However, the top 100 commenter summaries did provide user names, which suggested gender identities.

The top 100 commenter lists were then manually coded for gender orientation. Users' first names were coded male, female or ambiguous/pseudonymous. Usernames that were gender neutral such as Chris or Elliot were counted as ambiguous. Usernames that included male gender references: Mr, man, boy, lad, guy, uncle and brother were coded male, as were obviously male pseudonyms such as Randy Old Codger and Alaric the Visigoth. Usernames that included female gender references: Mrs, gal, girl, lass, aunty and sister were coded female. Where possible, user profiles were cross-checked against gender identification, either self-reported or in images. An intercoder reliability check of 150 samples, 10 from each of the 15 lists, achieved 98.3% level of agreement.

There is a possibility that some female users have adopted male pseudonyms, in the George Eliot literary tradition. However, of the 15 sites, three have real-name Facebook commenting systems—Huffington Post, Orange County Register and Texas Tribune.

These provide a control to the sites that allow anonymous (guest) log-in or use of pseudonyms.

In summary, the methodology enables comparative assessment of material access in the top web news services for four countries. It then drills down into a comparative content analysis of commenter interaction in high engagement sites and gives insight into the gender inclusion patterns of their top commenters.

Access to news commenting

Table 2 shows the extent of in-house and social media commenting opportunities across the sample of 40 top news websites in the United Kingdom, Australia, the United States and Denmark. It documents the provision of four key branded social media channels (Facebook, Twitter, Instagram and Google+), together with an indication of the visibility of the latter, or other channels (Pinterest, Tumbler) on the homepage. Other regularized opportunities for news-related commenting are noted in column four, while the final column records the commenting platform and the mode of opening stories for comment. The sample includes 20 legacy newspaper websites, 11 television broadcasters and nine digital native sites, a number of which are aggregation services and so package legacy news and news wire stories.

In-house commenting is, as expected, not as widely implemented as social media interaction channels. Only 55% of the online services examined hosted freely accessible, regular news comments sections. This figure rises to 67.5% when access to opinion and analysis commenting is included, although this does not always provide as immediate, predictable coverage of news events. Several companies had paywalls preventing or limiting comments, including four News Corporation sites The Sun, The Times, Herald Sun and The Wall Street Journal, which blocked access for non-subscribers. Berlingske.dk provided access to stories but required user subscription for commenting access. Others, such as The New York Times, The Sydney Morning Herald and The Age employed a freemium model, which restricted content access but not commenting opportunities.

Legacy newspaper brands tend to lead broadcasters and digital natives in providing their own, moderated comments systems. Only of 54.5% of broadcasters offered in-house comments, although two of the public service broadcasters enabled commenting on news opinion. One-third of digital native sites did not enable comments, all of them aggregators.

Table 2. Comparative usage access in the top 40 web news services, U.K., Australia, U.S. & Denmark, July 2014

Web News Service	In-house News comment	Social Media A/C (visible)	Other Regular Sections	Comment Platform	Editorial Mode
Mail Online dailymail.co.uk	yes	All (FB/TW/P/G+)	UGC ticker tape	Bespoke	Open by default
Guardian theguardian.com	yes	All (None)	Comment Is Free, iWitness	Bespoke	Selected/ Opinion
BBC News bbc.com/news/uk	No	All (FB/TW)	Have Your Say Your News Your Pictures, blogs etc.	Bespoke	Opinion only
Telegraph telegraph.co.uk	yes	All (FB)	News & Opinion blogs	Disqus	Selected
Sky News news.sky.com	yes	All (FB/T/G+)	Stand up be Counted	Livefyre	Selected
ITV news www.itv.com	No	All (None)	N/A	N/A	N/A
Sun thesun.co.uk	paywall to comment	All [paywall]	—	Livefyre	—
Daily Mirror mirror.co.uk	No	All (FB/TW/G+)	N/A	N/A	N/A
The Independent independent.co.uk	yes	All (None)	Voices	Bespoke	Selected
Times thetimes.co.uk	paywall to comment	All (FB/TW)	—	Livefyre	—
news.com.au	No	All (FB/TW/IN/G+)	NewsCorp Opinion blogs	Livefyre	N/A
ninemsn www.9news.com.au	yes	All (None)	—	Bespoke	N/A
Yahoo 7 au.news.yahoo.com	No	All (FB/TW)	—	—	N/A
Sydney Morning Herald smh.com.au	yes [paywall]	All (FB/TW/IN/G+)	Opinion blogs	Bespoke	Selected
ABC abc.net.au/news	No	All	The Drum, Q&A, blogs	Bespoke	Opinion only
Herald Sun Heraldsun.com.au	paywall to comment	All (FB/TW/G+)	—	Livefyre	—
Mail Online Aust dailymail.co.uk/auhome	yes	All (FB/TW/P)	—	Bespoke	Selected
The Age age.com.au	yes [paywall]	All (FB/TW/G+)	Opinion blogs	Bespoke	Selected
Bigpond (Telstra) bigpond.com.au	No	All (FB/TW)	—	—	—
Guardian Australia theguardian.com.au	yes	All (None)	Opinion blogs	Bespoke	Selected
Huffington Post Huffingtonpost.com	yes	All (FB/TW/G+)	Opinion blogs	Facebook	Selected

ABC News abcnews.go.com	yes	All (FB/TW/IN/G+)	Twitterfeed Blogs	Disqus	Selected
Wall St Journal online.wsj.com	paywall to comment	All (FB/TW)	—	—	—
Google News google.news.com	No	—	—	—	—
Washington Post Washingtonpost.com	yes	All (None)	Opinion blogs	Bespoke	Selected
Yahoo News news.yahoo.com	yes	All (FB/TW/TU/G+)	—	—	N/A
CNN cnn.com	yes	All (FB/TW)	iReport, blogs	Disqus	Selected
New York Times nyt.com	yes [story paywall]	All (None)	Opinion blogs	Bespoke	Selected
Fox News foxnews.com.au	yes	All (None)	—	Livefyre	Selected
NBC nbc.com	yes	All (None)	—	Facebook	Open by default
Ekstra Bladet ekstrabldet.dk	yes	All (TW)	Folkets Røst	Bespoke	Selected
B.T. bt.dk	No	All (FB)	—	N/A	N/A
Politiken politiken.dk	No	All (FB/TW)	Debat	Bespoke	Opinion only
TV2 tv2.dk	No	All (None)	Sociale		N/A
Danmarks Radio dr.dk	No	All (None)	Facebook/ Twitter	FB page/ Twitter	Program related
Jyllands-Posten jp.dk	No	All (FB/TW)	Debat/Blogs [paywall]	FB page	Opinion only
Berlingske Tidende b.dk	paywall to comment	All (FB/TW)	Debat/Blogs	N/A	N/A
mx.dk	yes	All (FB)	—	Facebook	Selected
Dagens dagens.dk	yes	All (FB/TW)	—	Facebook	Open by default
Lokalavisen Lokalavisen.dk	yes	All (FB)	—	Bespoke	Selected

PBS Newshour was the only public service broadcaster to offer in-house commenting on news. The BBC and Australia's ABC are under political and regulatory pressure to maintain news impartiality and have prioritized public sector expenditure on reporting rather than moderation costs. They opened a limited selection of opinion and analysis stories for comment in the BBC's Have Your Say and ABC's The Drum sections. Both channels also seek user news interaction in other ways though local station and current

affairs websites, and innovative social broadcast hybrids such as the ABC's Q&A program, which incorporates live moderated Twitter feeds. Danmarks Radio did not offer news commenting, but relied heavily on Facebook interaction. It even offered a page listing the many Facebook and Twitter channels it maintained for its various TV and Radio programmes: http://www.dr.dk/Service/socialemedier/. Relying on unfunded, private, third party channels like this is, however, a potential compromise to public sector independence and user privacy.

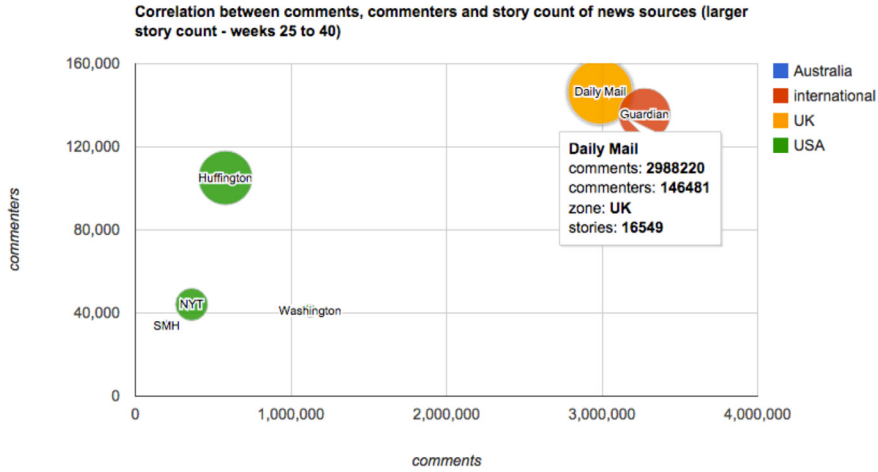
Without exception companies all maintained branded Facebook, Twitter, Google+ and Instagram accounts. Yet there were significant differences in how they promoted these on their homepages. More than a quarter of the sample including The Washington Post, The New York Times, BBC, The Guardian, ITV and The Independent did not push users to their branded social media from their homepages, although those links would usually be visible on story pages where the publication did not maintain in-house commenting. Facebook and Twitter links were often present on homepages, but less so Google+ or Instagram. Locating branded social media links was sometimes difficult, as the buttons or icons were located variously at the top of homepages, in right hand side columns amongst various forms of content and in the footer, or bottom information field, of pages. Icons were also displayed in various styles, sizes and colors. Thus finding these accounts might constitute a hurdle to access.

A key trend noted was the widespread use of integrated third-party platforms for managing commenting, including the Facebook plug-in, Livefyre and Disqus. While the majority of sites open for commenting had implemented bespoke in-house content management systems, all six News Corporation sites used Livefyre, four Facebook and three Disqus modules. In the data analytics sample discussed in the next section, three sites (Huffington Post, Orange Country Register and Texas Tribune) used Facebook and two (PBS Newshour and Illawarra Mercury) used Disqus to manage news comments.

Interaction in News Commenting

Figures B and C show the scope of interaction for each of the 15 sites by numbers of commenters, numbers of comments generated and the size of the bubbles, which represents the number of stories open for comment. The linked interactive version of the graphs also shows total numbers of comments, commenters and stories open for comment, as well a country zone. The Guardian and the Conversation, which comment count includes stories from United Kingdom and Australian editions, are coded as international sites.

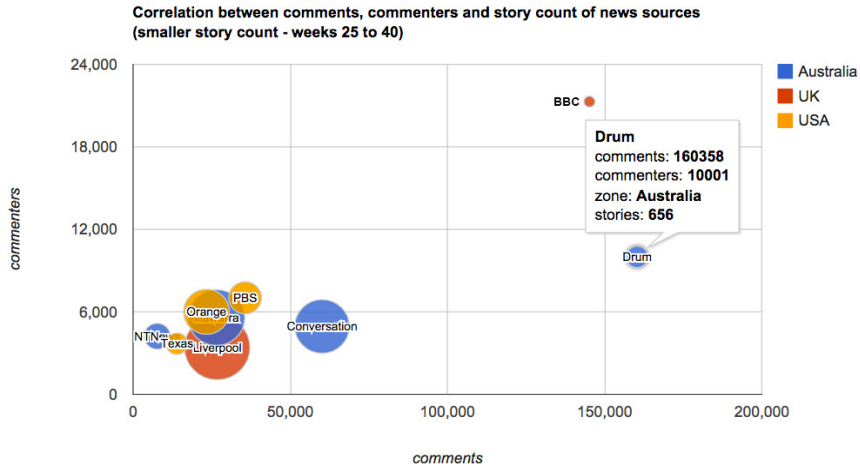
Figure B. Comparative correlation between comments, commenters and story count in high engagement news services with larger comment numbers



In this graph The Guardian and the Daily Mail Online appear as the participation leaders, followed by the Huffington Post. These three publications have all adopted a deliberate high engagement strategy, with low barriers to participation and investment varies participative tools. The Mail Online introduced up and down votes on comments as early as 2009. The Guardian allows users to create individual profiles, which curate comments made, replies received, comments featured and content created. A digital native publication like Huffington Post employs 40 moderators and automated filters including JULIA, “just a linguistic algorithm” in order to quickly process user posts (Sonderman, 2012, p. ?). What also distinguishes The Guardian and Mail Online, aside from the scope of their access opportunities, is the scale of participation, which draws on their local editions in the United Kingdom, Australia and United States.

There are correlations between the next three publishers—the metropolitan legacy broadsheet news services The Sydney Morning Herald, The Washington Post and The New York Times. All have subscription heavy revenue models and freemium paywalls. Here we can see the trade-off between engagement, quality and accountability, with each setting a threshold limit on the number of stories open for comment, in order to ensure the speed of moderation and civility of participation. The New York Times, for example, employs 14 full-time moderators, although it only opens 18 articles a day for comment.

Figure C. Comparative correlation between comments, commenters and story count in high engagement news services with lower comment numbers



Public service media and local publications sit at the other end of the news participation scale. Both the BBC's and Australia's ABC opinion commenting sites attract a high number of comments on relatively few stories. The degree of interaction is partly a reflection of their highly educated, loyal audience base, national and international reach, and editorial focus on encouraging debate on stories of wide social significance.

It was not a surprise to see PBS Newshour at the lower end of the scale with the regional publications, as the broadcast program has experienced a precipitous plunge in ratings over recent years. It was more interesting to see The Conversation in the lower range for both comments and commenters, given its international franchise. It is a relatively new enterprise though (launched March 2010) which doesn't have the benefit of legacy branding or sustained audience development. It is also working with a pro-am journalism model and a cohort of academic writers trained in public commentary but not necessarily public interaction.

Early feedback on these findings suggested that it would be necessary to weight the figures and rankings by unique audience numbers or other measure of reach. However comparable audience metrics were not available for all publications and would not necessarily provide deeper statistical insights into relative usage access. This would be easier to gauge if we had access to other data on commenting accessibility for each news service, for example:

a. the proportion of all news stories open for comment (by genre)

b. the number of hours stories are open for comments

c. the period of the day stories remain open relative to changes in unique audience presence during the day.

Pursuing this data was far less important for this study than developing a better understanding of how inclusive these commenting environments are in terms of commenting distribution and demographics.

The Distribution of News Commenting

The scope of participation is suggested by the distribution of commenting amongst the top 100 commenters, which is illustrated in Figures D, E and F. As these graphs indicate, the distribution is remarkably similar across the three sectors and the majority of publications.

Figure D. Commenting distribution: international and metropolitan news services

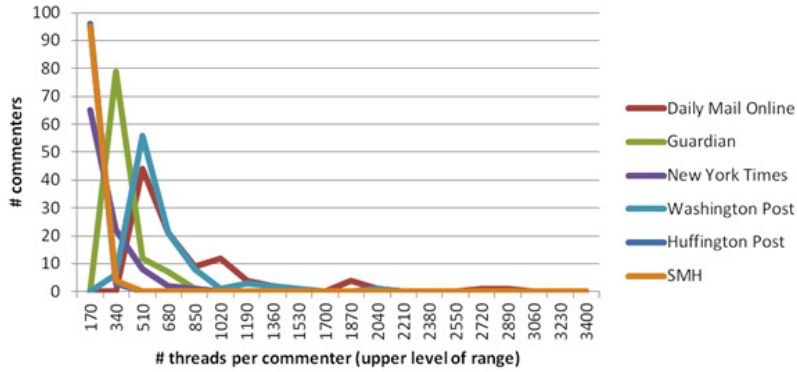


Figure E. Commenting distribution: public sector news services

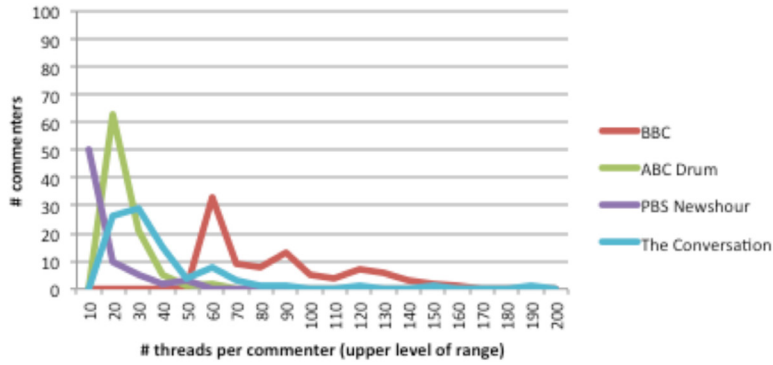
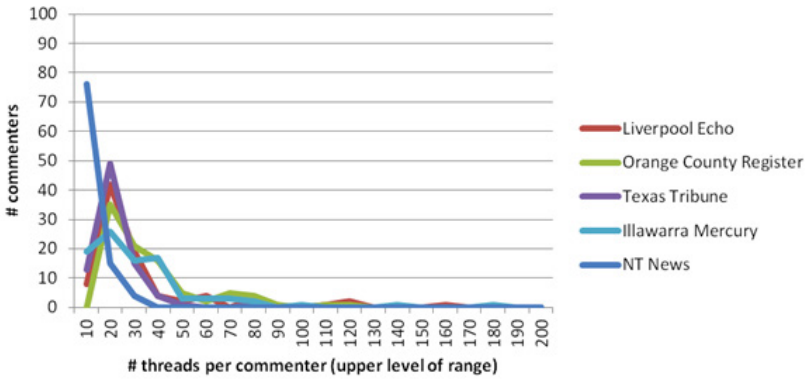


Figure F. Commenting distribution: local news services



The data from all 15 sites indicates that commenting occurs in what is known as a power law distribution with a long tail formation. There are a few highly regular contributors and a majority who only post on occasionally. A long tail occurs where a probability distribution shows a vastly larger share of a population occurring within one tail (in this case in the region of the lower frequency commenters), rather than evenly balanced either side of the mean as occurs under a normal distribution. Long tails in media have been observed following different statistical distributions. Chris Anderson (2006) envisioned the long tail of Internet sales as a power law distribution, while Brynjolfsson et al. (2010) found that the long-normal distribution provided a better predictor of Amazon book sales.

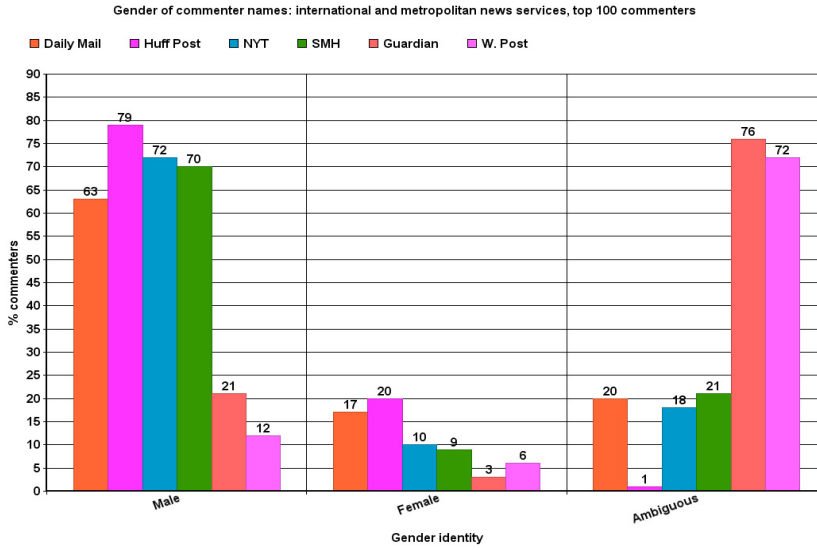
These distributions above illustrate the habitual practices of intense participants, central to the phenomenon editors describe disparagingly as the capture of comments sections by a small group of users, whose velocity of posting, consolidation of social ties and intimate address can work to exclude irregular commenters. The BBC's tendency to a normal distribution deserves further analysis, to see whether it is a statistical anomaly or due to moderation techniques and posting constraints that ameliorate the domination of commenting by the very few.

Gendered Participation and Exclusion

A more disturbing form of exclusion was noted in the content analysis of gendered user names among top 100 commenters. This indicates that very few commenters adopt female user names, even in real name commenting systems, and suggests that men dominate news commenting

The graphs below show, on the X axis, the division of users names by three categories: male, female and ambiguous (often pseudonymous, but also gender neutral), with the percentage of top 100 commenters on the Y axis.

Figure G. Gender bias in commenter names: international and metropolitan news services, top 100 commenters



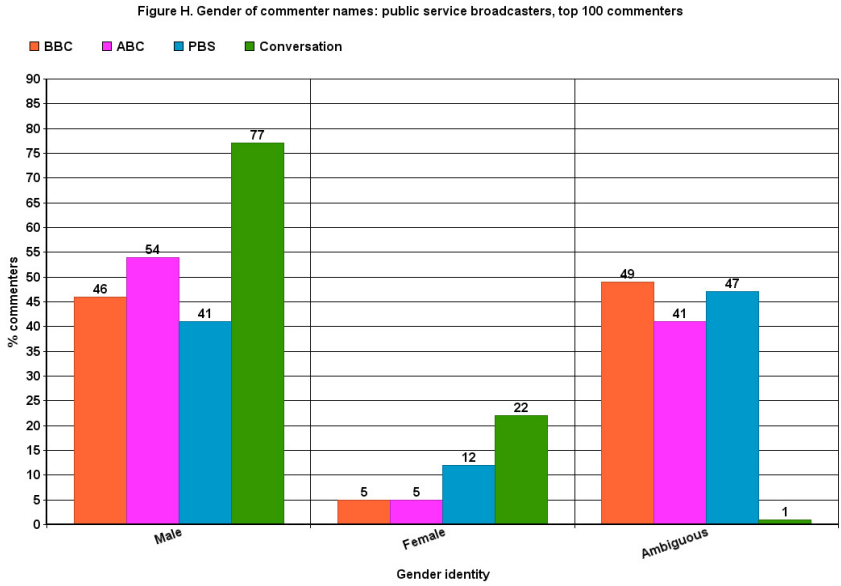
Male-named participants dominate across all the international and metropolitan populations. All of the news services in this sample do have a male skew in their reported audience demographics, except the Daily Mail Online (55% F, 45% M), however the gender differentials seen here are far more pronounced. Across the board female-identified commenters represent a lower percentage of the news commenting population. In the two sites where pseudonyms are commonly used, The Guardian and The Washington Post, the representation of female user names is even lower (3% and 6%).

The real-name Facebook systems of the Texas Tribune (35%) Orange County Register (21%) and Huffington Post (20%), together with the real-name preferred Conversation (22%), represent the highest female participation rates. These figures correspond with those of a study of commenter gender identity in The New York Times, which found that 27.7% of gender identified commenters were women, and they made only 24.8% of the comments (Pierson, 2014).

The digital natives display the highest sectoral ratio of female identified participants. The Texas Tribune leads, despite its male target user skew, followed by the Huffington Post. The Daily Mail Online (17%), which has the fourth highest female identity ranking, has a pronounced female target user skew and “red-top”, or tabloid, focus on celebrity, human interest and lifestyle “soft” news, so it would be expected to perform higher. This suggests that news values, which have traditionally favored “hard,” or ostensibly masculine topics such as politics, crime, and sport and finance, are not a central factor determining the appeal of participation.

A similar pattern of male identity domination is obvious, and as consistent, amongst the public service broadcasters, the BBC, ABC and PBS. In Figure H, PBS demonstrates the highest female participation of the three but is the only service in this category to offer news rather than opinion commenting. As a group these services do not provide public data on their male/female audience skew, so considering its impact on participation is more difficult. The public broadcasters all enable pseudonymous participation so it is possible that they have a hidden female user group. However, a comparison with The Conversation, which encourages real-name participation, suggests that the male domination trend is still likely to be present.

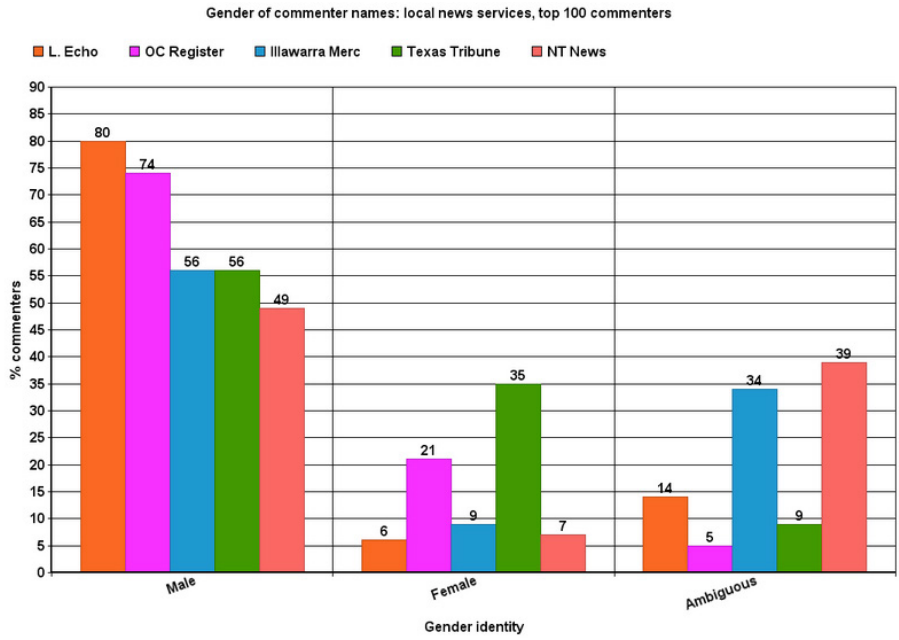
Figure H. Gender bias in commenter names: public service broadcasters, top 100 commenters



Among the local sites the gender imbalance is also marked, particularly with the Liverpool Echo, a Trinity Mirror service that has a heavy focus on football and other sports coverage (6% female identified commenters). The Texas Tribune's leading performance in female identified participation (35%) may be due to its third sector focus on public engagement and interest innnovation, and warrants further investigation for its site design, journalist involvement in comment facilitation, as well as its moderation and governance approaches. The Orange County Register, which has made a concerted public attempt to tackle incivility in commenting has achieved the second highest female identified interaction rate, contrasting with its reader demographics (47% F, 53% M). This indicates its move to real name Facebook commenting may be supporting gender inclusion better than other publications.

The Illawarra Mercury, the web presence of a regional print service covering the Wollongong area south of Sydney, and the Darwin-based state service Northern Territory News, both show a strong user preference for pseudonyms which may be important for commenting on contentious political issues in rural areas, to ensure privacy and social cohesion.

Figure I. Gender bias in commenter names: local news services, top 100 commenters



Overall the analysis suggests that there were very few users with female names, and thus that men dominate news commenting. The male bias, however, appears to be confirmed in the sites that demand real name use, via Facebook, such as the Huffington Post, PBS and Texas Tribune. Those sites with a strong culture of pseudonym use, The Guardian and the Huffington Post demonstrate even fewer declared female users, suggesting that the use of a gender ambiguous pseudonym is more desirable than the declaration of female identity.

Discussion

Aside from confirming the trend towards news media using social media as a preferred commenting platform, this study has made three interesting findings about access to participation in news commenting:

1. access to opinion commenting is higher than to news commenting

2. television broadcasters are less likely to host comments than newspapers

3. comment platform providers such as Facebook, Livefyre and Disqus are becoming key cultural intermediaries in in-house news participation

Future news participation research could usefully explore the value that users place on access to commenting on the news vis-a-vis opinion and analysis. In Weber's (2013) study of factors influencing commenting, readers were more engaged by analysis than simple facticity. When Reuters recently shut down in-house comments on its news feeds (Reuters, 2014), but kept them on opinion and blogs sections of its site, it also appeared to be indicating the greater value of interaction around more discursive news forms. Dan Colarusso, the executive editor, provided an unconvincing case that social media were better commenting platforms because users were "well informed" and channels were "self-policed by participants to keep on the fringes those who would abuse the privilege of commenting" (Reuters, 2014).

This study suggests social media provide material accessibility and interaction, but are not "safe" or even necessarily desirable spaces for the discussion of contentious news issues. Governance issues are only now beginning to occupy Twitter, Facebook and YouTube as users demand greater facility for reporting and managing abusive behavior and removing offensive content.

Second, it is noteworthy that television broadcasters often rate as important news sources and yet their web services are less highly geared to access, interaction or participation than newspapers. This highlights how the print media's circulation decline has been an impetus to greater reader engagement and points to this sector as a continuing focus for innovation in participative media, alongside public service and third sector media.

Thirdly, the rise of Facebook, Livefyre and Disqus as news mediation services merits further attention. There is little scholarship on the new cultural intermediaries of news journalism, and much to investigate about their relative power to aggregate, assemble and trade in user analytics, and thus potentially to influence editorial decision-making.

The comparative analysis of scale in news interaction demonstrates that the highest engagement sites all invest in deliberate participative strategies, which deserve closer study for their implementation of inclusive design and editorial practices. Support for pseudonymous commenting is also of interest in understanding social inclusion, particularly in rural areas where close social connections and proximity factors may otherwise inhibit users from making public comment on controversial topics.

The probable gender imbalance in news commenting was not completely unexpected. The findings here correspond, for example, with social studies of gendered participation in meetings and seminars where men control the organization of social spaces (Karpowitz & Mendelberg, 2014). However, it is critical to find out why women are not interacting through comments, and whether they find it unimportant, unappealing, costly

or a lower priority than other social and cultural activities. Further research is needed to understand whether, and why, some women might adopt pseudonyms for the purposes of commenting on the news. One possible cause is the level of gender discrimination and abuse they may face in these forums, particularly in opinion sites, where the originating text is a polemic.

The likely gender bias of new commenting challenges naive conceptions of social inclusion in online media. It presents a challenge to journalists, moderators and the developers of commenting systems to think more deeply about the ways in which media participation is structured. For example, there has been some debate about whether the introduction of real name systems may deter participation, but in this instance real name systems show a greater visible presence of female identified participants than those that enable pseudonyms. While Pierson (2014) indicates this may not necessarily afford women greater social visibility in men's eyes, it lends voice diversity to public debate.

Overall the study raises useful questions about the sole use of social media platforms for media participation and their diverse specific opportunities for the structuring of participation across different social and cultural groupings. Further as social media demand publicly identifiable, relationally bound interaction with news services, more investigation is needed on how users' privacy and peer influence concerns impact on aspects of their access, interaction and participation.

Conclusion

The top 40 online news services studied here provide seemingly diverse forms of access to commenting on news and opinion, although more to the latter than the former. However, most news organizations have pushed their news participation out to branded social media channels with possible impacts on social inclusion. In-house commenting was less accessible, despite its economic, political and cultural value and greater guarantee of effective governance, and less common on broadcast news sites than those of newspapers. Public sector and subscription media impose limits on commenting access for economic and quality control reasons, suggesting research is needed into the editorial rationale for opening comments.

The trend to social commenting may reverse as companies seek more control over platform design and user analytics. The question then is whether the costs of producing in-house commenting outweigh the value of traffic and audience insights. Certainly the findings of gender bias in this study should make publishers and policy makers pause to investigate the commercial and diversity implications of this apparent marginalization of women from the digital public sphere.

This study suggests it takes more than social media to make for inclusive news participation. News journalism is a social environment where the focus on conflict and human drama engenders passionate responses; responses that reproduce, recirculate and amplify existing social inequities, fears and hatreds. If journalists are to establish participative ties to a wider range of users they will need to develop more sophisticated

approaches to the design, facilitation and governance of commenting interactions. This invites further research on the design of systems for more inclusive news conversations, as well as new techniques for encouraging and mediating participation.

Acknowledgements

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References

Anderson, C. (2006). *The long tail: How endless choice is creating unlimited demand*. London, UK: Random House Business Books.

Bintrim, R., Escarfuller, W., Sabatini, C., Tummino, A., & Wolsky, A. (2014). The Social Inclusion Index 2014. *Americas Quarterly*. Summer 2014. Retrieved from http://www.americasquarterly.org/charticles/socialinclusionindex2014/

Australian Government. (2013). Chapter 5: Multiculturalism and the social inclusion agenda. In Joint Standing Committee on Migration. *Inquiry into Migration and Multiculturalism in Australia*. March 2013. Canberra. Retrieved from http://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=mig/multiculturalism/report.htm

Barnes, R. (2014). The “ecology of participation”. *Digital Journalism* 2(4): 542-557.

Bartlett, J., Norrie, R., Pastel, S., Rumpel, R., & Wibberley, S. (2014). Misogyny on Twitter. *Demos*. Retrieved from http://www.demos.co.uk/publications/misogyny

Bentivegna, S., Guerrieri, P., & College of Europe. (2010). A composite index to measure digital inclusion in Europe: Analysis of e-Inclusion impact resulting from advanced R&D based on economic modelling in relation to innovation capacity, capital formation, productivity, and empowerment. European Commission. January 2010. Retrieved from http://ec.europa.eu/digital-agenda/en/news/composite-index-measure-digital-inclusion-europe-1st-part-study-analysis-e-inclusion-impact

Borger, M., van Hoof, A., Costera Meijer, I., & Sanders, J. (2013). Constructing participatory journalism as a scholarly object: A genealogical analysis. *Digital Journalism* 1(1): 117-134.

Braun, J., & Gillespie, T. L. (2011). Hosting the public discourse, hosting the public: When online news and social media converge. *Journalism Practice* 5(4): 383-398.

Brynjolfsson, E., Hu, Y. J., & Smith, M. D. (2010). The longer tail: The changing shape of Amazon’s distribution curve. *Social Science Research Network*. September 2010. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1679991

Cammaerts, B. & Carpentier, N. (2005). The unbearable lightness of full participation in a global context: WSIS and civil society participation. In J. Servaes & N. Carpentier (eds.), *Towards a Sustainable Information Society*: Beyond WSIS, (17-49). Bristol, UK: Intellect.

Carey, J. W. (1989). *Communication as Culture: Essays on Media and Society*. Boston: Unwin Hyman.

Carpentier, N. (2011). The concept of participation: If they have access and interact, do they really participate? CM: *Communication Management Quarterly* 21:13-36.

Editor’s note: Reader comments in the age of social media (2014, November 7). Reuters. Retrieved from http://blogs.reuters.com/great-debate/2014/11/07/editors-note-reader-comments-in-the-age-of-social-media/

Ewart, J., & Snowden, C. (2012). The media's role in social inclusion and exclusion. *Media International Australia* 142: 61-63.

Gillmor, D. (2004). *We the media: Grassroots journalism by the people, for the people.* Sebastopol, CA: O'Reilly.

Graham, T. (2013). Talking back, but is anybody listening: Journalism and comment fields. In Eds. C. Peters and M. Broersma, *Rethinking journalism: Trust and participation in a transformed news landscape*. Oxon, UK: Routledge. (114-128)

Griffin-Foley, B. (2004). From Tit-Bits to Big Brother: A century of audience participation in the media. Media, Culture & Society 26 (4): 533-48.

Hampton, K. N., Rainie, L., Lu, W., Dwyer, M., Shin, I., & Purcell, K. (2014). Social media and the 'Spiral of Silence.' Pew Research Center, Washington, DC. Retrieved from http://www.pewinternet.org/2014/08/26/social-media-and-the-spiral-of-silence/

Hare, K. (2014, December 8). St. Louis Post-Dispatch turns off comments on editorials. Why? Ferguson. *Poynter.org* Retrieved from http://www.poynter.org/news/mediawire/306609/st-louis-post-dispatch-turns-off-comments-on-editorials-why-ferguson/

Hollier, S. & Brown, J. (2014). Web accessibility implications and responsibilities: An Australian election case study. Paper presented at the Australian and New Zealand Communication Association Annual Conference, Swinburne University, Victoria, July 9-11. Retrieved from http://www.anzca.net/documents/2014-conf-papers/753-anzca14-hollier-brown/file.html

Innovation. (2014, March 24). *The New York Times*. Retrieved from https://archive.org/details/nyt_innovation_2014

Khan, H. I., M. & Bawany, N.S. (2014). Web accessibility evaluation of news websites using WCAG 2.0. *Research Journal of Recent Sciences* 3(1): 7-13. Retrieved from http://www.isca.in/rjrs/archive/v3/i1/2.ISCA-RJRS-2013-234.pdf

Karpowitz, C. F. & Mendelberg, T. (2014). *The silent sex: Gender, deliberation, and institutions*. Princeton, N.J.: Princeton University Press.

Martin, F. (2012) Vox Populi, Vox Dei: ABC Online and the risks of dialogic interaction. In M. Burns & N. Brugger (eds.), *Histories of public service broadcasters on the web*, (177-192). New York, NY: Peter Lang Publishing.

Newman, C. (2014, April 12). Sick of Internet comments? Us, too — Here's what we're doing about it. Voices. [Blog post] Chicago Sun-Times. Retrieved from http://voices.suntimes.com/news/sick-of-web-comments-us-too-heres-what-were-doing-about-it/

Newman, N. & Levy, D.A. (2014). Reuters digital news report 2014. Reuters Institute for Journalism. Retrieved from http://www.digitalnewsreport.org/

Penman, R. & Turnbull, S. E. (2012). Socially inclusive processes: New opportunities with new media? *Media International Australia* 142: 74-86

Pierson, E. (2014). Outnumbered but well-spoken: Female commenters in the New York Times. Paper presented to CSCW 2015. Vancouver, March 14-18. Retrieved from http://cs.stanford.edu/people/emmap1/cscw_paper.pdf

Singer, J., Domingo, D., Heinonen, A., Hermida, A., Paulussen, A., Quandt, T., Reich, Z., & Vujnovic, M. (2011) *Participatory journalism: Guarding open gates at online newspapers*. West Sussex, UK: Wiley-Blackwell.

Sonderman, J. (2012, October 22). How the Huffington Post handles 70+ million comments a year. *Poynter.org*. Retrieved from http://www.poynter.org/news/mediawire/190492/how-the-huffington-post-handles-70-million-comments-a-year/

Turner, H. (2013, June 21). *Report for Ofcom: The value of user-generated content*. [Consultants report,. Retrieved from http://stakeholders.ofcom.org.uk/binaries/research/research-publications/content.pdf

Trygg, S. (2012). Is comment free? Ethical editorial and ethical problems of moderating online news. London, UK: Journalist Fonden/Polis. Retrieved from http://blogs.lse.ac.uk/polis/files/2012/01/IsCommentFree_PolisLSETrygg.pdf

U.S. Department of State. (2014). Racial and ethnic equality and social inclusion. [Policy brief]. Retrieved from http://www.state.gov/p/wha/rt/social/

Van Dijk, J. (2008). One Europe, digitally divided. In A. Chadwick & P. N. Howard (Eds.), The handbook of Internet politics. (288-304). London and New York: Routledge.

Viner, K. (2013, October 9). The rise of the reader: Journalism in the age of the open web. The Guardian. Retrieved from http://www.theguardian.com/commentisfree/2013/oct/09/the-rise-of-the-reader-katharine-viner-an-smith-lecture

Weber, P. (2014) Discussions in the comments section: Factors influencing participation and interactivity in online newspapers' reader comments. *New Media & Society* 16(6): 941-957

World Editors Forum. (2013). Online comment moderation: Emerging best practices. World Association of Newspapers, WAN-IFRA and Open Society Foundation. Retrieved from http://www.wan-ifra.org/reports/2013/10/04/online-comment-moderation-emerging-best-practices

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Digital divisions: Organizational gatekeeping practices in the context of online news

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Digital technologies have changed the means by which media organizations produce the news. Using gatekeeping theory, current research has treated news organizations as relatively homogenous, as opposed to analyzing the differences that exist within and across newsrooms about how online news should be produced. This research uses gatekeeping theory to qualitatively examine the accounts of 21 online news personnel from 16 leading news organizations in the United States. The results reveal digital news divisions centered around two themes: resource constraints and news socialization practices. Both of these themes have components that are internal and external to news organizations.

Newsrooms have made extensive changes as they navigate the evolving journalism landscape. One theory implicated by these changes is gatekeeping, or the process by which all available information is narrowed down to the few pieces of information that make up the news (Shoemaker & Vos, 2008). Gatekeeping processes have evolved as the digital news product has gained importance. At the BBC, for instance, the arrival and incorporation of user-generated content has modified the venerable news outlet's traditional gatekeeping role (Harrison, 2010). Users' ability to personalize their news website experience has created a newsroom culture where gatekeeping functions are now shared (Thurman, 2011) and audiences perform a secondary gatekeeping role (Singer, 2014). Studies like these add valuable information to our understanding of the audience's gatekeeping role. What is missing from this literature is a discussion of how the shifting landscape has led to digital divisions within and across news organizations. Our research seeks to fill this void.

With few exceptions, current gatekeeping research exploring how newsrooms are dealing with contemporary challenges has treated news organizations as a relatively homogenous group (Cook, 2006), as opposed to analyzing differences of opinion that exist, particularly regarding how online news should be created, packaged, and distributed. This omission is relevant because different opinions within the newsroom affect the external news product. We argue, and the data in this paper support, that

online news has divided how news organizations approach resource allocation and socialization. Divergences exist within newsrooms as well as in how newsrooms seek to engage the public.

This research provides an explanation of digital news divisions within and across news organizations. To that end, we performed a qualitative analysis of data collected during two separate day-long interview sessions with groups of digital news leaders from the United States' leading news organizations. Results reveal organizational gatekeepers who frequently are not of the same opinion on how to approach digital news and the ways in which these disagreements affect news organizations.

Organizations and Gatekeeping

Gatekeeping is the process whereby individuals make decisions about which ideas, products, and messages should be passed on to others. When applied to the news media, gatekeeping theory analyzes how the many available pieces of information are winnowed to the select group of items that make up the news (Shoemaker & Vos, 2008). The earliest formal research on gatekeeping, for instance, identified that the personal preferences of an editor affected which wire stories became news articles (White, 1950). In subsequent years, scholars have examined numerous gatekeeping influences on the news product—from the ideological characteristics of individual journalists (Patterson & Donsbach, 1996) to societal assumptions about what should be covered (Shoemaker & Vos, 2009).

To categorize the variety of gatekeeping influences, Shoemaker and her colleagues (Shoemaker & Vos, 2009; Shoemaker & Reese, 2014) developed a typology. Called the Hierarchical Influences Model, five levels of influence on which bits of information become news have been identified: individuals, routines, organizations, social institutions, and social systems. News organizations, despite their competition for audiences, share similar formal structures, including beats and organizational hierarchies, as well as informal structures like routines of source outreach and professional values that influence news production. These structures, routines, and values unite all news organizations in a much broader institution (Cook, 2005). Livingston and Bennett (2003), for instance, investigated reporter, organizational, economic, and technological influences on event-driven international news at CNN. They noted that despite a rise in event-driven international news, official sources still dominated stories—a testament to the influence of journalistic routines and values.

The transition to digital news has brought about changes in gatekeeping influences. To date, research has focused mainly on the routines and social institutions levels of influence. The routines level involves standard procedures and widely-held beliefs about how to make the news. Deadlines, for instance, can limit how much information journalists are able to obtain for a story. Digital news has changed news routines. Instead of preparing the news for a single publication or broadcast during a day, the internet era demands 24/7 news. News values also have shifted. Based on her ethnographic work at *The New York Times*, Usher (2014) argues that the transition to digital news has

introduced values such as interactivity that affect the news product.

The social institutions level, which includes audiences and profit motivations, also has been influenced by the transition to digital. Audiences now play a role in the gatekeeping process by emailing news content to others, commenting in response to news stories, and submitting digital news content (Owen, 2013; Shoemaker & Vos, 2009; Singer, 2014). As a consequence, newsrooms must negotiate for control over the observation, selection, and filtering stages of news production (Hermida et al., 2011). Efforts at controlling citizen influence have the effect of digitally re-instilling a newsroom gatekeeping role (see Boczkowski, 2004; Deuze, 2003; Domingo, 2008).

The profit motivation aspect of the social institutions level also has shifted with the transition to digital news. Organizational hierarchies traditionally separate journalistic from business interests, creating figurative and sometimes physical divides (Gans, 2004; Kovach & Rosenstiel, 2007). Digital news has heightened commercial pressures. News organizations are searching for new business models since digital revenues pale in comparison to traditional, ad-based revenue streams (Holcomb, 2014). Nguyen (2008) argues that economic viability concerns led legacy media to adopt emerging news technologies while being "restrained within a traditional value network" (p. 93). From a gatekeeping perspective, a focus on profit can push news organizations to make different editorial decisions.

The benefit of the hierarchy of influences model is that it can expose gaps in our understanding of what influences the news. Although the routines and social institution levels have been examined in light of the digital transition, the organizational level of influence has received comparatively less attention. The organizational level involves "management styles, goals, news policies, size, newsroom cultures, and staffing arrangements" that vary across news organizations (Shoemaker & Vos, 2009, p. 63). How the digital transition influences the production of the news requires more research.

Our work examines current gatekeeping at the organizational level of news, placing this study in the context of research on the sociology of news (Berkowitz, 1990; Cook, 2005; Gans, 2004; Robinson, 2007; Usher, 2014). This perspective looks at how intra-organizational influences shape the news produced. At legacy television and newspaper outlets, newsrooms traditionally are structured in a tiered manner where editors and producers serve as the gatekeepers for stories written by journalists (Cook, 2005). Hierarchies work to "minimize threats to that control and identity" (Bimber, Flanagin, & Stohl, 2012, p. 20). Berkowitz (1990), in his observation of a network-affiliated television station in Indianapolis, found that news decisions were largely group-based, with power tipping toward the news director. As a consequence, individuals—whether journalists who report to editors or news producers who report to executives—must be socialized to the mindset of superiors in order to successfully market stories (Cook, 2005). Hierarchies are a critical gatekeeper in this regard.

The rise of digital news directly challenges gatekeeping influences within news organizations. The transition to digital involved re-arranging newsrooms. As

Shoemaker and Reese (2014) describe, some newsrooms created separate digital and print divisions. As news organizations restructured and sought to integrate digital technologies, new goals and purposes emerged for digital news stories, including a greater flexibility to "breakaway from formulaic storytelling" (Robinson, 2007, p. 311).

Much contemporary scholarship has focused on commonalities in how traditional organizations approach online news. Scholars have looked for cross-organization patterns in how journalists think about their roles (Cassidy, 2006; Singer, 2006), how news is presented online (Singer, 2014), and gatekeeping divisions between journalists and the audience (Bro & Wallberg, 2014; Harrison, 2010; Lee, Lewis, & Powers, 2014; McKenzie, Lowrey, Hays, Chung, & Woo, 2011; Tandoc, 2014; Thurman, 2011; Vu, 2013). Cassidy (2006), for example, found that print and online journalists' conceptions of professional roles were influenced similarly by sources, training, bosses, and economics. Although many of the studies were sensitive to differences across various news organizations, the research conclusions looked at patterns across organizations. What is lacking in this wealth of scholarly findings, however, is the story about the gatekeeping divisions that exist within and across news organizations.

With limited exceptions (e.g., Anderson, 2011; Robinson, 2007), recent scholarly efforts have treated journalists as a homogenous entity. Although conceiving of journalists in such a way may be helpful for explicating the divisions that exist between the audience and journalists, doing so fails to highlight the uniqueness of journalists and the organizations in which they operate. Indeed, Cook (2006) warned of this when he stated: "I fear the homogeneity hypothesis is too often treated as a matter of faith rather than a starting point for empirical analysis" (p. 164). The state of affairs for one organization may not be the same for others in the digital news environment, precisely as the organization level of the gatekeeping model suggests. To really understand the impact that audience interaction, emergent media, and other innovations have on newsrooms, it is vital to examine the digital divides that may exist within and across newsrooms.

To be clear, several recent studies have peered into newsrooms (Robinson, 2007; Singer, 2004; Usher, 2014; Vu, 2013), but none with the particular focus that we undertake here. Anderson's (2011) ethnography illuminated how three different newsrooms navigated their journalist/audience relationships. Although Anderson highlighted some tensions between reporters and other newsroom staff related to audience interaction, the thrust of his research was not internal newsroom divisions, so much as the tensions between newsrooms and their audiences. McKenzie et al. (2011) looked at differences in how journalists focused on audiences based on factors that included community and news organization size, but did not explore differences in organizational culture. Tandoc (2014) reported on the ways in which audience interaction and the availability of audience metrics influenced newsroom practices. Although his study shined a light on newsroom activities, his arguments were based on the "balancing act" between universal journalistic values and a new ability to tailor the news product to the audience (p. 12). Singer (2004) analyzed how print journalists navigate converged newsrooms, where print co-exists with other media forms such as digital news production. Consistent with our analysis, she uncovered some tensions within

newsrooms. Our work extends her findings by looking at impressions of internal divides by digital news leaders, as opposed to print journalists, and by considering variability across different newsrooms.

We suggest that looking at divisions in organizational gatekeeping practices within and across newsrooms will be of scholarly worth in helping to explain the current state of online news gatekeeping. This conclusion was reached not only because it was the major theme that emerged from our extended interviews, but also because of the many gatekeeping issues over which newsrooms are and can be divided.

Method

Data were collected from two separate day-long in-depth interviews with groups of digital news representatives. The first session was held in February of 2014 and was attended by representatives from 10 news organizations. The organizations were: *CNN*, *Daily Beast*, *National Public Radio (NPR)*, *The Arizona Republic*, *The Dallas Morning News*, *The New York Times*, *The Sacramento Bee*, *The Texas Tribune*, *The Wall Street Journal*, and *The Washington Post*. Attendees from these news organizations held various senior level, digital news-related positions within their organizations, such as Chief Digital Officer and Chief Innovation Officer.

The second set of interviews were conducted in November of 2014. Again, participants came as representatives of 10 news organizations, and although some of the same organizations were represented at both interviewing sessions, none of the individuals participating in the first session participated in the second one. The organizations were: *CNN*, *The Denver Post*, Gannett Digital, *NJ Advance Media*, *NPR*, *Philly.com*, *Politico*, *The Wall Street Journal*, *The Washington Post*, and *Vox*. The job titles of those attending included Director of Digital Products, Vice President, Digital Outreach, and other senior-level positions.

Data Collection

Each in-depth interviewing session took place over two days, and activities were comprised of moderated roundtable discussions, small group brainstorming sessions, and short (roughly 10 minutes in length) individual presentations by each participant. Both sessions were audio recorded, producing a total of 20 hours of recordings.

At both sessions, the moderator posed questions to the participants related to their responsibilities and opinions about digital news. The following are typical questions asked of the digital news representatives: What constitutes success in digital news innovation? What role should news audiences have? Are fragmentation and personalization problems or opportunities? What could your organization do to address polarization? What opportunities and challenges are there in today's digital news environment? To facilitate discussion among participants, follow-up questions were used in the moderated portions of the sessions. Responses to these questions formed the backbone of the major discussion topics that emerged.

Data Analysis

The authors independently and collectively analyzed the audio recordings as well as the notes they took during the sessions, looking for patterns and themes in the participants' comments. Suggestions abound for how to conduct qualitative data analysis, especially related to ensuring a study's rigor and trustworthiness (Adcock & Collier, 2001). For our purposes, we followed an emerging pattern design, where pattern discovery was informed by the organizational gatekeeping theoretical framework outlined in our literature review. Although we did not pursue a grounded theory methodology, we were nevertheless guided by Lincoln and Guba (1985), as well as Shenton (2004), in utilizing several techniques to help ensure the credibility of our analysis. Specifically, we used member checks, a growing familiarity with journalistic culture, internal rounds of reflective commentary, and comparisons among interviews sessions to substantiate our results and subsequent conclusions.

Results

From an organizational perspective, we identified two themes mentioned by the digital news professionals as key gatekeeping influences: resources and socialization. Each was discussed with respect to considerations internal to the newsroom and considerations external to the newsroom, such as the role of the public.

Figure 1. Typology of Organizational Influences in Online News

	Gatekeeping Influence	
Position Relative to the Newsroom	*Resources*	*Socialization*
Internal	Allocation and structure of newsroom	Newsroom personnel
External	Other news organizations; The public	Public norms of engagement

As Figure 1 illustrates, digital news professionals face a central challenge at the organizational level of gatekeeping. Digital news makes news organizations both inward and outward facing to varying degrees. Newsroom personnel must look inward at their own practices of resource allocation and staff socialization while outwardly seeking to integrate the public and shape engagement norms as part of the gatekeeping process. The accounts we analyzed illustrate rich divergences on how news organizations are navigating organizational gatekeeping internally and externally around resources and socialization.

Resources

A common refrain among participants was that finite resources limited their abilities to meet the challenges facing digital newsrooms. Participants described both internal and external resources. Internal resources include a news organization's financial assets, staff size and talent, time, and data tools. External resources involve assets that exist outside the newsroom, such as the organization's unique news audience or their ability to monitor and follow the lead of competitors. As we discuss below, resources affect the gatekeeping process.

Internal resources. Internal resource availability provides the most immediate constraint under which news organizations operate. Finances act as a critical gatekeeper within newsrooms, as the amount and allocation of funds dictate the availability of other resources, most especially staff (which has both size and talent components). Staff size and talent then play a role in how newsrooms are able to spend their time, as well as what they are able to do with any audience data they collect. It was not uncommon to hear participants talk about ideas and practices as tied to a financial outcome. For example, one participant wanted to:

> (assign) a cost value to every piece of content that we produce that says this is how much it cost in terms of a fraction of salary for the guy who wrote it, his gas money, and comparing it against the ads we had on the page, what the click-throughs were, what the impressions were for that page, and the whole chain cycle.

One breakout group echoed this statement, nominating return on investment (ROI) as a new metric. They wanted to know how much effort the outlet, editor, and writer were putting in to producing a piece of journalism compared to the outcome of the effort. Reliance on ROI measurements could have a profound influence on what becomes news in a gatekeeping process.

Financial constraints provided the explicit or implicit undertones to much of the discussion surrounding resources. One participant noted: "We are a very slim team, as I think everybody [here at the interview session] is, and we can't really afford to not be focused." With a similar focus on financial constraints, another participant said: "We have to ask whether we're going to be the best at seven things, or just okay at 25 things."

Some newsrooms felt that resource constraints limited their organization's digital capabilities. For example, as participants discussed the use of A/B testing on their websites, one participant from a national news outlet expressed amazement at how much experimentation was occurring at several of the other organizations, exclaiming: "Where do you get the resources?!" This participant, like many others, expressed not only surprise at how others had overcome limited resources, but also disappointment that their organization was not innovating in similar ways.

As evidenced in the previous example, news organizations are not hamstrung by limited

resources—most are developing innovative offerings and techniques in their newsrooms. One participant created an analytics team to help reporters improve how they wrote and packaged online content. Another not only created innovation teams, but also produced new digital products meant to improve the audience experience. Another participant stated that, “a social team and a homepage team are in place to examine the headlines that work… [and] an in-house platform was built for social sharing.” Other participants were able to leverage resources to create unique audience-focused products, including unique polling structures, commenting platforms, and even virtual reality immersion experiences.

One topic that was discussed in relation to resource issues was the online comment section. In wrestling with how to create a good commenting atmosphere, participants agreed that resources were a requirement. Some organizations invested immense resources; as one participant reported, “We use active moderation. Although it is vastly resource intensive, having a human make a space where readers are encouraged to contribute meaningful comments makes the comments more readable for other people.” Another said, “We had editors going through and pointing out the ‘comment of the day,’ and that got a lot of really good response.” Others faced constraints in dedicating staff time to commenting. One participant stated: “It would be great if every reporter could be in the comments after [they finish their story], but that’s not realistic.” Another noted: “Partially for resource reasons, partially because it’s political, we didn’t want to get in the fray too much.” One participant, noting how his organization had followed the lead of another, indicated: “*The Washington Post* was highlighting comments, which I thought was interesting. We tried that for a while, but unfortunately, we downsized.” Other participants echoed the sentiment that resource constraints limited their ability to build a more ideal commenting environment.

Although digital metrics (e.g. number of page views, unique site visitors, social media article sharing, etc.) are consistently logged, many newsrooms lacked the resources to understand the complicated array of numbers generated on a real-time basis. As one participant noted, “there is little sophistication in how metrics are examined.” Another summed this up when he said: “We spend a lot of time depending on our numbers and our measurements, and I’m convinced that we’re not really always right about a lot of it.” Even when the data are gathered, the numbers do not always provide newsrooms with meaningful details about site visitors. Expressing a wish for more substantive data, one participant stated:

> We talk a lot about … capturing … data, but we don’t know who [the visitors really are]…. We know the people that are coming once a month or once a year, and we have some sense of why…. But what we’re trying to do now – and I think it is the next frontier—is to put a face on that and learn a lot more.

Although technology will inevitably catch up to the point that such information will be available to newsrooms, how news organizations use data will still be constrained by other available resources.

In sum, internal resources affect gatekeeping within organizations. How staff and monetary resources are allocated affects whether comments are moderated, whether data are mined for insights on news presentation, and how digital innovation is pursued.

External resources. News organizations also look beyond their walls for resources that will help them improve their reporting and their bottom line. Specifically, they take cues from other organizations and from their audience.

To find ways to advance their newsroom culture and to build new products, some organizations are looking to the examples of others. One participant worked on an innovative polling tool. The participant stated: "We worked with a graphics team to do that, but I think the real key to this—and this is what we learned from competing with *The New York Times*—is that if you're going to spend the energy in doing this, you have to templatize it at the end of it, because otherwise, you really just wasted a lot of time for a story that lasted five days." Although learning from competitors is nothing new, some specifically referenced the willingness of others to share digital insights. When one news organization wanted to build a custom analytics program, they "went and talked to a bunch of people: *The New York Times*, *BuzzFeed*, *The Atlantic*…." Indeed, this collaborative mentality was in evidence throughout the workshops.

Another external resource mentioned by the news representatives was audience engagement. Leveraging the audience as a resource emerged when the participants described involving the audience in the news-creation process. Several talked about using loyal audience members to moderate a comment section or write pieces for the news site:"One of the things I hope we could do in the future is find a way for readers … to help moderate. We also had … select members of the community post blog posts." Figuring out how to maximize the business returns of audience engagement also emerged as a central point. One participant said:

> I'm not remotely convinced that commenting is the right way to get people to interact. I'm willing to say that the majority of us would say that the majority of comments on stories have no civic value, and commenting overall has no business value. So the question is, what do you replace it with?

Overall, the availability and allocation of internal and external resources constrain news organizations' abilities to pursue many worthwhile endeavors. The diverse resource constraints facing the organizations interviewed for this study affect what becomes news and what is presented to audiences online.

Socialization

The second emerging theme revolves around how newsroom personnel are socialized to operate within both the confines of limited resources and the expansive digital news landscape. The emergence of innovative forms of news production and dissemination has summoned critical needs associated with socialization. Internally, news personnel highlighted the immediate need to learn and adapt to an influx of real-time data as well

as emerging forms of news writing, re-packaging, and dissemination. Externally, news gatekeepers faced the question of how best to engage the public as citizen-based news producers, disseminators, and commenters alongside the news outlet.

Internal socialization. Becoming effective members of a news outlet requires personnel to learn the structures, management styles, and values of an organization. Newsroom gatekeepers approach the socialization process differently when it comes to learning data metrics and emerging forms of news production. Although news organizations understand and are attempting to expand the training and role requirements of journalists, editors are simultaneously facing the challenges of adopting digital responsibilities.

The well-publicized conception of modern journalism is that user data has inundated newsrooms. A number of digital news personnel conceded that data-driven journalism is still in its infancy; “The newsroom is just starting to grapple with what it means to … bring analytics in a transparent way into the newsroom,” noted one participant from a major print-based outlet. User data “is all over the place, and we don’t have that one thing to tie it together;” further, it often needs to be processed before analysis. Participants saw a need for journalists and editors to better understand the analytics displayed on different data dashboards (i.e. Chartbeat, Parse.ly, Omniture, Visual Revenue, Hootsuite, and Facebook). This socialization can include “training print people to be digitally-minded” or re-training online news personnel on the latest data.

To confront the challenge of training and re-training personnel, some news organization representatives described using existing resources and organizational structures. For a number of media organizations, what an individual learns about online news data depends on where the individual works in the newsroom. One participant noted, “Our [dashboards are] broken down by teams. Everybody’s looking for different numbers for different reasons.” Other outlets similarly compartmentalized data knowledge, choosing to have “a data team who works with larger numbers” or a “data analytics guy” responsible for briefing journalists and editors. Within each of these teams, individuals are socialized as to what to look for in the data, such as click-through or video completion rates. Although potentially necessary based on the size and scale of the news organization, intra-organizational divisions may create data divides in the knowledge gleaned from audiences as a consequence.

Although some news organizations reported using a division of labor process that compartmentalized data analysis, several other representatives—particularly from digital-based outlets—embraced a flatter organizational design. “One of the things we’ve focused on in the past year is making all the denominators the same regardless of which part of the company you are in. Where we arrived at is the VPV—the value per visitor.” Another participant remarked that their organization was doing Google analytics primers in order to “get people conversant.”

Stark differences in data training emerged in one session. A participant from a smaller, digital outlet noted that the organization meets with staff individually to discuss their

metrics, a means of training and familiarizing individuals with aspects of digital data. "We give them access to their author dashboard ... So what we do every month is sit together with each of them … we're a fairly small newsroom." This approach did not seem feasible for larger news organizations, with one participant remarking that a small newsroom gives "a lot of flexibility." The exchange revealed how organizational structures, size, and scale serve as critical gatekeepers in how individuals are socialized to interpreting news data.

The influx of user-generated data into the newsroom has tested gatekeepers' conceptions of news writing, packaging, and distribution. Along a continuum, organizations vary in how they have responded to the reorientation necessary for online news production. Some digital staff recognized the resistance they faced from traditionally-minded individuals wedded to legacy-based writing techniques. One participant explained, "[Copy editors] tend to be the most traditionally-minded and I often think that if we … had a three-day seminar with all the copy editors and changed all of their minds at once, we'd be golden." Intra-organizational debates occurred regarding not only what constitutes the news, but also how to write the news. "We have people who … don't want to jump on the next trend," noted one participant who then argued that the "news" no longer consists of only what the journalists thinks is important. "You can't just … write about biking to work because you're passionate about it." These sentiments about news writing and production were echoed by other individuals who recognized a need to re-socialize individuals to the demands of online news writing. "We know that headlines matter. To respond, you have to reorganize in a way that is not always comfortable or in a way in which print has not deployed in the past…." Several of our participants remarked that online news still faces intra-organizational resistance in some quarters.

Digital news professionals discussed the challenges of socializing individuals to online news writing due to organizational structures and traditions. Although some organizations faced less resistance to re-tooling news for digital presentation, others faced structural limitations. One participant described "a legacy/print mindset" where "projects sometimes have to be tied to a print story to get first class treatment." The participant, nonetheless, reported that more traditional individuals were re-learning approaches to news packaging. Digital divisions of labor also are quite different across news outlets. One participant noted that at their organization, "the division of labor [translates into different roles] … I'm the headline king, I'm the SEO king, I am the social graphic king." The participant explained that individuals unaccustomed to particular divisions of labor must be (re)taught the practices and norms of organization-specific approaches to digital news production. Several professionals conceded that to meet their goals, they had to "[reorganize] in the way we deploy meaning" by trying new techniques like teasing stories at different times to determine what topics "get maximum eyeballs."

At the other end of the continuum, online news professionals publicly reported little resistance to training individuals in digital news writing and production. Indeed, one participant described how the newsroom familiarized personnel with 10 different styles of headlines to consider when writing as well as implemented a collaborative process

with the managing editor to discuss headline appropriateness. “We do a lot with headlines as well. We expect our writers to write them, but we first also ask them to think about whether they should be writing an SEO headline or a social headline.” Another participant reported their organization’s philosophy by succinctly noting that “Data are bad for telling you what to write, phenomenal for telling you how to package content.” This digital news professional encouraged news personnel to “take the learnings from *Upworthy* and *BuzzFeed* and try to own them in a more hard news space.” Moreover, a number of participants reported on the organizational flexibility needed to A/B test headlines and news content. One participant explained that 50% of the headlines were tested because “the advertisers do it all the time.” The organization had deputized a Homepage Editor responsible for testing.

The socialization process varies widely across news organizations. News staff are socialized to think about audience data, digital products, and maximizing news products for social and SEO differently depending on their organization. This socialization process is an important part of the organizational influences on gatekeeping as familiarity with these audience metrics can affect how the news is conveyed to the public.

External socialization. Previous research has focused on the extent to which newsrooms must now navigate the role of the public in news production (Boczkowski, 2004; Deuze, 2003; Domingo, 2008; Hermida et al., 2011; Shoemaker & Vos, 2009). The conversations with digital news representatives revealed another form of engaging with the public: socializing the public to participate on the news outlet’s terms. The digital news professionals debated the efficacy of engaging in external socialization and reinstating a strong gatekeeper role over public involvement.

Several participants remarked that their roles increasingly involve community engagement and outreach. One outlet not only solicits story requests from the public, but then integrates the citizen(s) who requested the story in reporting. “We’re going to bring them along to be part of the story to do part of the reporting. So it’s a very personal kind of a thing.” By merging and highlighting the citizen and elite gatekeeping roles, a news outlet can model appropriate forms of citizen engagement while maintaining control over the news production process. Another newsroom added that efforts to “invite the community to help them with the reporting” involve learning how to ask for citizen involvement. “What they’ve learned is that when you say, ‘Be a journalist,’ people say, ‘Oh, wait. I don’t have the qualifications for that.’ But if you say, ‘Share your expertise,’ then they respond a lot differently.” Discussing online weather reporting, one participant described his outlet’s efforts to deputize citizen meteorologists. “We have events where we train people to collect weather data. We bring in a National Weather Service person. So we’re doing a community event of some kind….” The data produced by the citizen meteorologists then informs the newsroom in a process that again merges citizen and elite gatekeeping roles.

Organizational approaches to community engagement diverged when discussion turned to online commenting. One perspective advanced was that it is not the job or the place of newsrooms to ensure civil and deliberative commenting on news sites.

"I would tell reporters not to engage at all because you could never win," was the sentiment expressed by one participant. Another digital news professional stated: "We experimented a little bit with columnists going in and responding to comments, and the commenters didn't like it. They said, 'You have a column, you've had your say already, this is our space. Get out of here.'" In these cases, the news outlet made little effort to guide and socialize citizens on how to respond to the news.

The other approach we identified took a more interventionist perspective towards socializing the public to the norms of commenting alongside the news. One participant described "a concerted effort to be very aggressive in trying to make the content underneath the comments reflect the journalism that we're trying to present." One outlet identified community and thought leaders to moderate comments and "participate in public discourse on the site." As a participant explained, "once [news staff are] in there and post, we can say, 'Hey, this is a troll-free zone. We're going to try to keep the conversation on-topic, respectful and relevant.' And generally in that space and time that the staff is in there, it ends up being a pretty good experience." Another participant saw their organization's role as guiding the public toward a fruitful commenting experience. "When we actually talk to commenters about their bad behavior, they usually apologize or calm down … it seems that personal interaction works really well." Although these efforts can be resource-intensive, some outlets have adopted this pseudo-pedagogical approach as part of their online news philosophy.

These varying approaches to external socialization illustrate how online news staff are still adjusting to the influence of the public as a news gatekeeper. Efforts to engage and socialize the public around a set of news norms offer an important account of how some digital news professionals are attempting to reassert elite influence over engagement online. Much as prior scholars have observed, greater digital "handling" of the public instills the traditional journalist gatekeeping role (Boczkowski, 2004; Deuze, 2003; Domingo, 2008).

Discussion

Discussions among 21 digital news staff reveal several organizational influences on the digital news gatekeeping role. First, monetary, data, and audience-based resources can be deployed in ways that influence the news product. In the digital environment, news staff thought about the return-on-investment, A/B testing, and how audiences could be leveraged in the production of news. Second, new forms of socialization appeared, including educating newsroom employees about digital metrics and molding how audiences interact with the news product. Both resources and socialization affect the digital news product, as gatekeeping theory suggests (Shoemaker & Vos, 2008). Although we did not examine the news product, the news representatives participating in our research made it clear that they were shaping the news product as a result of their organizational practices, such as A/B testing and a reliance on audience metrics.

Theoretically, our analysis adds to the growing literature on how gatekeeping has been modified by the transition to digital news (e.g., Shoemaker & Vos, 2009; Singer,

2014). Our research identifies the gatekeeping influence associated with resources and socialization practices that have become critical organizational factors in the modern news era. Cook (2006) cautioned against assuming that similarities exist among news outlets. Our research identified numerous differences among outlets. Some had more resources for digital experimentation than others. Some worked to ensure that all news staff were habituated to dealing with metrics, while others did not. These inter-organizational differences are a hallmark of the organizational level of the hierarchy of influences model.

One task for future research is to explain what factors contribute to inter-organizational differences. Although we are not able to reach a definitive conclusion as to the origins of these differences given our methodological choices, we do point to several possibilities. First, organizational differences exist between digital-first organizations (e.g. *Daily Beast*, *Politico*, *Texas Tribune*, *Vox*) and more traditional news organizations (e.g., *CNN*, *The New York Times*, *The Wall Street Journal*). For example, we noticed that much discussion of "return on investment" started with representatives from digital-first organizations. Further, representatives of more traditional news organizations seemed to place more emphasis on cultural divides between legacy and digital personnel. Second, organizational size, a factor flagged by Shoemaker and Vos (2008), likely affects the resource and socialization processes identified in this paper. Indeed, size was directly implicated when one participant described meeting with all employees to review their metrics and another participant noted that this would not be possible in a larger newsroom. Whether size, digital-first versus traditional, or some other organizational attribute most affects the news product remains an important starting point for future research. What our analysis is able to show is that considerable diversity exists across outlets and, as the news representatives in this study suggest, it affects what news makes it through the gates.

The possible factors explaining why organizational-level differences in resource allocation and socialization have emerged may not be best answered with the qualitative approach employed in this analysis. We share these possibilities while cognizant that qualitative findings lack generalizability. Our conclusions, sketched from the insights of 21 digital news professionals at 16 prominent news organizations, may not reflect the reality of other news organizations nor the factors underlying gatekeeping practices outside of our sample. That being the case, we are confident that our diverse sample, which is made up of news organizations representing national and local audiences, as well as print, broadcast, and digital-only news outlets, helps us flesh out a picture of struggles and change occurring in news organizations throughout the United States. Furthermore, our conclusions have been corroborated by member checks as well as subsequent visits with interview participants and additional newsrooms.

Conclusion

Digital news has created both challenges and opportunities for news organizations. Cross- and intra-organizationally, many news outlets are negotiating internal and external approaches to resource allocation and socialization as they focus increasingly on digital news. Accounts from digital news professionals suggest that many divergent approaches exist across newsrooms and implicate news gatekeeping. By engaging in extensive conversations with online news gatekeepers at digital and legacy organizations, we have uncovered evolving organizational news dynamics.

At the heart of the evolution of online news is the realization that a once similar outcome known as "the news" has fragmented, partly based on divergences in organizational gatekeeping. The rich perspectives of the personnel interviewed as part of this study present an important counterpoint to the homogeneity thesis. Resource allocation, both internal and external, is now approached quite differently. Newsroom structures and audience-based tactics are seemingly more tailored to the unique needs of each news outlet. Organizations, as a consequence, have developed different socializing philosophies built within the structures of available resources. The accounts offered here reflect the richness inherent in understanding intra- and cross-organizational differences.

Understanding emerging organizational dynamics may have critical implications for the subsequent content of online news. Gatekeeping theory would suggest that differences in organizational-level practices give greater variety to the perspectives, packaging, and dissemination of the news. Information provided to the public could be affected as a result. Although commercially-beneficial for news organizations, do "curiosity headlines" alter the frames of stories? Might individuals view the news differently based on the packaging of a story? The implications of digital news divides could be far-reaching.

The story of news gatekeeping often gets reduced to one of uniform influences on the news product: time constraints, newsroom structures, professional values, and more. A modern narrative integrates the push-pull between elite news and citizen gatekeepers. Although news organizations face similar gatekeeping forces, which unite disparate outlets in a broader institutional entity (Cook, 2005), digital news tests the foundations of this notion. The forces confronting news outlets may be similar, but organizational gatekeeping approaches to resource and socialization forces are diverging. This divergence is reshaping news organizations' gatekeeping roles and what we know of as the news.

References

Adcock, R., & Collier, D. (2001). Measurement validity: A shared standard for qualitative and quantitative research. *American Political Science Review,* 95(3), 529-546. doi:10.1017/S0003055401003100

Anderson, C. (2011). Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms. *Journalism*, 12(5), 550–566. doi:10.1177/1464884911402451

Berkowitz, D. (1990). Refining the gatekeeping metaphor for local television news. *Journal of Broadcasting & Electronic Media*, 34(1), 55-68. doi:10.1080/08838159009386725

Bimber, B., Flanagin, A. J., & Stohl, C. (2012). Collective action in organizations: *Interaction and engagement in an era of technological change*. New York, NY: Cambridge University Press.

Boczkowski, P. J. (2004). The processes of adopting multimedia and interactivity in three online newsrooms. *Journal of Communication*, 54(2), 197-213. doi:10.1111/j.1460-2466.2004.tb02624.x

Bro, P., & Wallberg, F. (2014). Digital gatekeeping. *Digital Journalism*, 2(3), 446-454. doi:10.1080/21670811.2014.895507

Cassidy, W. P. (2006). Gatekeeping similar for online, print journalists. *Newspaper Research Journal,* 27(2), 6-23.

Cook, T. E. (2005). *Governing with the news: The news media as a political institution*. (2nd ed.). Chicago, IL: The University of Chicago Press.

Cook, T. E. (2006). The news media as a political institution: Looking backward and looking forward. *Political Communication*, 23(2), 159-171. doi:10.1080/10584600600629711

Deuze, M. (2003). The web and its journalisms: Considering the consequences of different types of news media online. *New Media & Society,* 5(2), 203-230. doi:10.1177/1461444803005002004

Domingo, D. (2008). Interactivity in the daily routines of online newsrooms: Dealing with an uncomfortable myth. *Journal of Computer-Mediated Communication*, 13(3), 680-704. doi:10.1111/j.1083-6101.2008.00415.x

Gans, H. J. (2004). *Deciding what's news: A study of CBS Evening News, NBC Nightly News, Newsweek*, and TIME. Evanston, IL: Northwestern University Press.

Harrison, J. (2010). User-generated content and gatekeeping at the BBC hub. *Journalism Studies,* 11(2), 243–256. doi:10.1080/14616700903290593

Hermida, A., Domingo, D., Heinonen, A. A., Paulussen, S., Quandt, T., Reich, Z., Singer, J. B., & Vujnovic, M. (2011). The active recipient: Participatory journalism through the lens of the Dewey-Lippmann debate. Paper presented at the International Symposium on Online Journalism, Austin, Texas April 2011.

Holcomb, J. (2014). News revenue declines despite growth from new sources. The Pew Research Center. Available online: http://www.pewresearch.org/fact-tank/2014/04/03/news-revenue-declines-despite-growth-from-new-sources/

Kovach, B., & Rosenstiel, T. (2007). *The elements of journalism: What newspeople should know and the public should expect.* New York, NY: Three Rivers Press.

Lee, A. M., Lewis, S. C., & Powers, M. (2014). Audience clicks and news placement: A study of time-lagged influence in online journalism. *Communication Research*, 41(4), 505–530. doi:10.1177/0093650212467031

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Livingston, S., & Bennett, W. L. (2003). Gatekeeping, indexing, and live-event news: Is technology altering the construction of news? *Political Communication*, 20(4), 363-380. doi:10.1080/10584600390244121

McKenzie, C. T., Lowrey, W., Hays, H., Chung, J. Y., & Woo, C. W. (2011). Listening to news audiences: The impact of community structure and economic factors. *Mass Communication and Society,* 14(3), 375–395. doi:10.1080/15205436.2010.491934

Nguyen, A. (2008). Facing "the fabulous monster:" The traditional media's fear-driven innovation culture in the development of online news. *Journalism Studies*, 9(1), 91-104. doi:10.1080/14616700701768147

Owen, D. (2013). "New media" and contemporary interpretations of freedom of the press. In T. E. Cook & R. G. Lawrence (Eds.), *Freeing the presses: The First Amendment in action* (rev.) (pp. 141-160). Baton Rouge, LA: Louisiana State University Press.

Patterson, T. E., & Donsbach, W. (1996). News decisions: Journalists as partisan actors. *Political Communication*, 13(4), 455-468. doi:10.1080/10584609.1996.9963131

Robinson, S. (2007). "Someone's gotta be in control here:" The institutionalization of online news and the creation of a shared journalistic authority. *Journalism Practice*, 1(3), 305-321. doi:10.1080/17512780701504856

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75.

Shoemaker, P. J., & Reese, S. D. (2014). *Mediating the message in the 21st century* (3rd ed.). New York, NY: Routledge.

Shoemaker, P. J. & Vos, T. P. (2008). Media gatekeeping. In M. B. Salwen & D. W. Stacks (Eds.), *An integrated approach to communication theory and research* (2nd ed.) (pp. 75-89). New York, NY: Routledge.

Shoemaker, P. J., & Vos, T. (2009). *Gatekeeping theory*. New York, NY: Routledge.

Singer, J. B. (2004). More than ink-stained wretches: The resocialization of print journalists in converged newsrooms. *Journalism & Mass Communication Quarterly*, 81(4), 838-856. doi:10.1177/107769900408100408

Singer, J. B. (2006). Stepping back from the gate: Online newspaper editors and the co-production of content in campaign 2004. *Journalism & Mass Communication Quarterly*, 83(2), 265-280. doi:10.1177/107769900608300203

Singer, J. B. (2014). User-generated visibility: Secondary gatekeeping in a shared media space. *New Media & Society*, 16(1), 55-73. doi:10.1177/1461444813477833

Tandoc, E. C. (2014). Journalism is twerking? How web analytics is changing the process of gatekeeping. *New Media & Society*, 16(4), 559–575. doi:10.1177/1461444814530541

Thurman, N. (2011). Making 'The Daily Me': Technology, economics and habit in the mainstream assimilation of personalized news. *Journalism*, 12(4), 395–415. doi:10.1177/1464884910388228

Usher, N. (2014). *Making news at the New York Times*. Ann Arbor, MI: University of Michigan Press.

Vu, H. T. (2014). The online audience as gatekeeper: The influence of reader metrics on news editorial selection. *Journalism*, 15(8), 1094-1110. doi:10.1177/1464884913504259

White, D. M. (1950). The "gate keeper:" A case study in the selection of news. *Journalism Quarterly,* 27(3), 383–390.

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#Ferguson strategic messaging: How local journalists and activists used Twitter as a communication tool

Amber Hinsley and Hyunmin Lee

Guided by literature on journalistic practices and activists' communication strategies during crises, this pilot study examined how local journalists and activists used Twitter as a communication tool following Michael Brown's death. Through a content analysis, we noted general Twitter practices used by journalists and activists, examined whether the two groups used different message strategies, and identified the ways in which journalists and activists framed their messages about the Ferguson crisis. Findings suggested that while the local journalists and activists showed similarities in their overall use of Twitter, their message strategies and frames were consistent with established practices for each group.

The role of social media has garnered much attention in examining the spread of news and information related to the August 2014 death of Michael Brown in Ferguson, Mo. We sought to understand how journalists and activists used Twitter to disseminate information about the events in Ferguson and how their tactics varied in the week following Brown's death. Using crisis communication strategies as our lens in this exploratory study, we examined tweets from local journalists and activists to gauge the differences in their messages, as well as their use of hashtags and retweets. In doing so, we were able to study whether using Twitter in times of crisis—especially so-called "man-made" crises like Brown's death—might alter journalists' norms and practices and affect the approach used by activists.

Following Brown's death, journalists shared the gatekeeping space with a range of others, including activists. While other studies have examined how journalists covered crises or how their work influenced reactions to a crisis, we wondered to what extent Twitter messages and strategies of journalists and activists varied. How were they helping to make meaning via Twitter of the events in Ferguson and subsequent related incidents? In such a "big story" as the aftermath of Brown's death, would the media break from normal routines? Would activists adopt journalistic practices?

Ferguson Background and Framing

To properly situate this pilot study, it is helpful to review the events surrounding the death of Michael Brown on Aug. 9, 2014 in Ferguson, Mo. Brown,18, was unarmed when he was shot multiple times by then-Ferguson police officer Darren Wilson. After hearing several weeks of testimony, a grand jury in November 2014 chose not to indict Wilson in Brown's death.

The following information was reported by dozens of news organizations and included in grand jury documents released after the grand jury returned its finding: On the day Brown died, he was recorded on video surveillance taking a box of cigars from a convenience store. The theft was reported to police, along with descriptions of Brown and his friend, Dorian Johnson. Minutes later, Wilson stopped Brown and Johnson as they walked down the street. Brown and Wilson engaged in a struggle at Wilson's police SUV and Wilson's gun went off. Neither man was seriously hurt, and Brown and Johnson ran from the car. Wilson followed them on foot and Brown turned around. Witnesses have disputed what happened next, and it was one of many moments considered by the grand jury in whether to indict Wilson. Brown turned around, some say with his hands up to signal surrender; others reported he appeared to start toward the officer (Freivogel, 2014). Wilson fired several shots, killing Brown.

The shooting of Brown, an unarmed African-American, by Wilson, a white police officer, initially garnered moderate local press attention. Protests grew from a collective of residents and local leaders organizing action at the grassroots level. Their messages, while sometimes disconnected from each other, quickly took off on social media—particularly on Twitter through the use of related hashtags that included #HandsUpDontShoot, #MikeBrown and #Ferguson. As the story grew on social media, the outcry amplified and drew international attention and press coverage. St. Louis-based media in particular leveraged their reporting resources to cover the story, especially in the first week when it dominated international news. Local television and news radio stations broke from national programming to provide live or extended coverage. Local newspapers featured multiple stories both in print and online. Journalists at these outlets relied on Twitter to share information, find sources and engage in conversations. All of these were interruptions of the outlets' regular routines of news-gathering and coverage. Additionally, the local journalists shared personal connections to the area with local activists—St. Louis was "their" community.

The message strategies of journalists and activists tweeting about the events in Ferguson can be examined using the tenants of framing theory. Frames are the central organizing idea to identify and provide meaning to a specific issue (e.g., Goffman, 1974). Entman (1993) argues that to frame is to "select some aspects of a perceived reality and make them more salient in a communicating text" (p. 52). The different types of strategic message frames used to report about Ferguson can influence public understanding and perception (Scheufele & Tewksbury, 2007).

Journalistic Practice and Covering Crises via Twitter

Research has long established the routines and practices of U.S. journalists, including their professional job role perceptions as disseminators and interpreters of the news as well as their reliance on official sources (Detenber, Gotlieb, McLeod, & Malinkina, 2007; Sigal, 1973; Weaver, Beam, Brownlee, Voakes, & Wilhoit, 2007). Journalists have continually confirmed their commitment to the public service and watchdog functions of the American press and to the tenets of objectivity, autonomy and immediacy (Hinsley, 2014; Weaver et al., 2007). Through the execution of their professional rituals, journalists reinforce their authority and control the flow of information.

With the development of new technology, journalists have experienced threats to their authority because "everyday citizens" have entered the news production process and disrupted the "framework of established journalism" (Hermida, Lewis, & Zamith, 2014, p. 481). Twitter, for example, has become a source of breaking news in which anyone can share bursts of information in 140 characters (Hermida et al., 2014), and is used by about one in five adults in the U.S. (Matsa & Mitchell, 2014). Thought leaders and top influencers on the social media site can dramatically affect the flow and prominence of information as their messages and retweets are exponentially rebroadcast (Hermida et al., 2014). Pew data on Twitter conversations reveals that media organizations and their well-known workers are prominent agenda setters who direct dialogue in their networks and act as the link between otherwise unconnected followers (Smith et al., 2014). Additionally, Twitter has provided opportunities for exposure to more diverse and under-represented viewpoints (Hermida et al., 2014; Paulussen & Harder, 2014). The unrest in Ferguson highlighted ways in which this previous research could be applied and tested, such as through the reach of journalists' and activists' retweets of other users' Twitter messages and retweets by other users of the journalists' and activists' messages. Beyond the protests in Ferguson, notable recent examples of Twitter's importance as an international news and information source, as well as a platform for activist voices, include the 2011 Egyptian revolution and the 2014 non-indictment of a New York police officer linked to the death of an unarmed African-American man, Eric Garner.

More than half of all journalists use social media (Oriella PR Network, 2013), oftentimes to share breaking news during crises such as what occurred following Michael Brown's death. Lasorsa, Lewis, and Holton (2012) found considerable variance among journalists on social media, but they tend to be more vocal in their opinions on Twitter than in traditional media reports. Members of the press also use the social media site to provide greater accountability and transparency in their work. Additionally, journalists act as gatewatchers on Twitter, sharing information with their followers from members of the public (Hermida et al., 2014; Lasorsa et al., 2012). Despite the threat to their journalistic authority presented by new technologies—such as Twitter—news workers have integrated them into their routines, especially as they experienced the utility of such tools in helping fulfill their job roles (Moon & Hadley, 2014; Paulussen & Harder, 2014).

During times of crisis, journalists rely on their professional routines as they report the news, and the public relies on news workers to help them make sense of the unfolding

unrest (Riegert & Olsson, 2007). Through Twitter, journalists can provide continuous reports from the scene, and their maintained presence communicates the importance and drama of the event (Papacharissi & de Fatima Oliveira, 2012; Riegert & Olsson, 2007). Research has even found that breaking objectivity standards to provide occasional opinions or personal experiences during upheaval can legitimate journalists as truth-tellers in the eyes of the public (Riegert & Olsson, 2007). In the same way that journalists use Twitter to report from disaster and protest scenes—allowing the audience to "experience" those events from other locations—activists too can use social media to share information and connect with the audience. Together, journalists and citizens contribute to the construction of news frames on Twitter (Papacharissi & de Fatima Oliveira, 2012).

Research on protest coverage suggests the press frequently covers such events in predictable ways, emphasizing the chaos and confrontations between activists and law enforcement, as well as the resulting arrests (Detenber et al., 2007). Budarick (2011) asserts that by covering protests in such a manner, the media contribute to the "narrative reestablishment of the social order" (p. 49). Even through their objective Twitter reports from the scene, journalists, as well as activists, may reinforce the status quo by communicating a focus on the conflict events instead of larger issues at hand.

Activism, and Activists on Social Media

Activism is a series of actions in which groups of people pressure organizations or institutions to change policies, practices or conditions the group finds to be problematic (Smith, 2005). Its movements are characterized by the participants' various interactions with those who hold power in order to evoke social, political, or economic changes (Cammaerts, 2007; Tilly, 1978).

Traditionally, activists or advocacy groups have been defined as "a group of two or more individuals who organize in order to influence another public or publics through action that may include education, compromise, persuasion, pressure tactics, or force" (L. A. Grunig, J.E. Grunig, & Dozier, 2002, p. 446). Activist groups attempt to influence public policy to reach a common goal through the use of strategic communication, and the primary purpose is to influence organizational action, social norms, beliefs and values (Smith, 1997; Sommerfeldt, 2013). Activists have long been recognized as successful communication practitioners, and usually have their own distinct audiences (Smith & Ferguson, 2001).

Activists' ultimate goal is to rectify the conditions they have identified as unsatisfactory. In order to do this, activists must draw attention to the problem, position themselves as legitimate advocates and successfully argue for their recommended resolution (Crable & Vibbert, 1985; Heath, 1997; Cheney & Vibbert, 1987). This is where strategic communication tactics take place, with activist groups communicating their position on issues, soliciting calls for action, and engaging target audiences in policy discussions.

Activist groups differ in size and structure, and Ferguson presents a unique case study

because activists there, especially in the days immediately after Michael Brown's death, were not members of an organized group. They were members of the community—residents, local leaders, clergy and others—who expressed their dismay at the shooting of an unarmed African-American teen and voiced their disdain for the social systems that created confrontational relationships between minorities and law enforcement, and limited opportunities for education, employment and advancement in minority populations across the country. Ferguson activists represented a collective of varied perspectives and experiences who did not have an organized, central communication strategy.

Because of this, we sought to examine whether the local activists in Ferguson used tactics similar to practices employed by established organizations. Previous research indicates that regardless of their size or structure, activist groups engage in a variety of strategies to accomplish issue objectives largely based on their organizational form and overall goals (Jacques, 2006; Leitch & Neilson, 2001). Jackson (1982) identified five general categories of communication tactics activist groups use in pursuit of their goals. These include:

(a) informational activities, including media interviews and other media relations behaviors such as holding news conferences;

(b) symbolic activities such as boycotts or protests;

(c) organizing activities such as networking, holding meetings, and community outreach activities (e.g., organizing a soup kitchen or donation drives);

(d) litigious activities such as petitioning, filing lawsuits, influencing legislation, and testifying at hearings;

(e) civil disobedience activities like sit-ins, blocking traffic, and trespassing.

As exemplified in this typology, the range of activist strategies runs the continuum from the reserved to the extreme, and highlights how different activists may be from one another. In addition to Jackson's typologies (1987), Derville (2005) found that activists also frequently implement emotion-evoking messages, such as using derogatory words, explicit language, or controversial terms to create conflict and gain attention. Taylor, Kent, and White (2001) asserted that with the rise of the internet, activists have started to utilize more dialogic strategies, such as asking and responding to questions, engaging in online conversations, and building relationships via online resources.

The prevalence of social media has brought various changes to activist practices, including a more microscopic boundary for defining activists. In previous literature, activists have been described exclusively as groups of individuals (e.g., Anderson, 1992; Jackson, 1982; L.A. Grunig et al., 2002; Smith, 1997; Smith & Ferguson, 2001; Sommerfeldt, 2013). However, it is essentially quixotic to assume that activists only function in organized groups. Aldoory and Gruing (2012) argued active individuals

crystalize into collective groups such as activist organizations, and function as loosely connected groups of individuals rather than an orchestrated group. Therefore, it may be more systematic to examine engaged individuals as the spearheads of an activist group. Further, Harlow and Guo (2014) explained that online social media have emerged as a common gateway into digital activism.

The ease with which people can participate in online activism may encourage other individuals to voice their concerns about social issues, and social media allows them to do so with rapid speed. Previous research has shown that internet-based tools, especially social media, have facilitated individual activism through reduced participation costs and the ease of promoting collective identity and creating a sense of community (Norris, 2004; Harlow & Guo, 2014). These social networks have made possible the immediate dissemination of information to anywhere, anytime, virtually for free. Furthermore, social media sites help to create collective experiences that are necessary precursors for successful protest movements (Valenzuela, Arriagada, & Scherman, 2012). Harlow and Harp (2012) conducted a survey among 100 known activist individuals in the United States and Latin America, and found that among them, nearly all (98.6%) use Facebook and nearly half (47.2%) use Twitter for online activism. Additionally, most activists, regardless of whether their activism occurred online or offline, said social media were important for organizing, mobilizing, informing and promoting debate, and they believed that online activism is a precursor to offline activism. Harlow and Harp (2012) concluded that social media sites are an essential part of activism, especially in the United States.

Valenzuela et al. (2012) found similar results in surveys of Chilean youth; frequent Facebook use was positively related to participation in offline protests. In sum, social network sites enable individuals to organize themselves more easily and to voice their concerns more publicly (Valenzuela et al., 2012). What used to require a visible and physical group to influence another public or publics through strategic actions and communication can now take place online. Furthermore, an influential individual can serve as a catalyst for organizing and mobilizing a mass crowd around an unfolding crisis.

The Ferguson case offers a rare opportunity in that while local press initially covered the issue with moderate interest, Brown's shooting developed into a crisis as it was being tweeted about. By examining how activist individuals used Twitter to disseminate key messages, we can determine whether they attempted to promote mobilization through known activists strategies. Research has shown that Twitter frequently is used to call networked publics into action during periods of instability (Papacharissi & de Fatima Oliveira, 2012). Papacharissi and de Fatima Oliveira (2012) explained that during these times, individuals are recast as journalists, and function based on what they have been socialized to recognize as accepted news values. However, individuals do adapt these messages to the context of the situation and their own perspective (Papacharissi & de Fatima Oliveira, 2012).

Research Questions

This exploratory study seeks to better understand how local activists and journalists used Twitter in the week after Michael Brown's death in Ferguson, Mo. We approached the project with two general research questions to help establish foundational knowledge about the practices being used by local activists and journalists, such as whether they were primarily creating their own tweets or retweeting others, how much variety they used with Ferguson-related hashtags, and how many times their tweets were retweeted by others. The first two research questions were:

RQ1: What were the general Twitter practices used by activists and journalists?

RQ2: How did Twitter practices differ between activists and journalists?

Next, we wanted to examine phenomenon identified in previous studies of communication during times of crisis. Research has shown that organized advocacy groups use journalistic strategies like information-sharing, as well as boycotts, community outreach, and emotional appeals in planned communication campaigns (Derville, 2005; Jackson, 1982; Taylor, Kent, & White, 2002). However, the local activists in Ferguson were not members of any particular organization and had no discernable training in effective crisis communication. They were "regular" community members and a handful of elected officials, all of whom had different individual experiences and agendas. Twitter was one of their main communication tools. Would they still use similar tactics in their messages?

Local journalists, too, presented an interesting avenue of study in this pilot project because research suggested that while they rely on their professional routines to help make sense of crises through their reporting, they also would be more likely to break with journalistic objectivity norms during those times (Riegert & Olsson, 2007). Additionally, Lasorsa et al. (2012) found journalists were more willing to express their opinions on Twitter than in their traditional news reports. Would being members of the St. Louis community make local journalists more likely to speak with an activist's voice on Twitter because the protests and other events were happening in a place where they were personally connected? Thus, the third and fourth research questions posed were:

RQ3: What were the most common Twitter message strategies used by activists and journalists?

RQ4: Did the Twitter message strategies differ depending on whether the source was an activist or journalist?

The final research questions center on how the journalists and activists framed the unrest in Ferguson through their Twitter messages. Frames have been regarded as the cognitive schemata of interpretation and the central organizing idea to locate, identify, label and provide meaning to a given issue (Gamson & Modigliani, 1989; Goffman, 1974). The particular message that builds up a frame is important to examine because

the characteristics used to manifest the issue in message frames can largely influence how the audience comes to understand the issue (Scheufele & Tewksbury, 2007).

This study seeks to examine what types of primary message frames appear in Ferguson-related tweets. How would these groups of local journalists and activists, all of whom have different vested interests and approaches, frame issues related to Ferguson—would the frames be markedly different? Was it possible their shared connection to the area might contribute to similar ways of talking about the situation? Previous research had not compared groups' message framing on Twitter during times of crisis, and so we asked:

RQ5: What were most common Twitter message frames used by activists and journalists?

RQ6: Did the Twitter message frames differ depending on whether the source was an activist or journalist?

Methods

The focus of this exploratory research was to probe the differences in journalists' and activists' communication strategies in the week following Michael Brown's death. We concentrated the study on local journalists and activists because of their prior knowledge of the community and sustained presence in Ferguson. Focusing on local journalists and activists allows for comparable analysis of individuals who are personally connected to the region. The tweets incorporated in this study are listed as they appear without modification.

Journalists and Activists Selection Criteria

The journalists' and activists' tweets were downloaded from ExportTweet.com, an online service through which tweets can be downloaded according to username. The most recent 3,200 tweets are available for each user. In addition to the tweet, ExportTweet also indicates whether each message was a retweet, the number of times it was favorited by others and how often it was retweeted by others.

Journalists' Twitter accounts were identified for possible inclusion in this project if the media professional worked at a St. Louis-area news organization and had posted any tweets about Brown's death and related events from Aug. 9-16. From a list of more than 40 local journalists, the top 10 were selected based upon the number of Ferguson-related tweets they posted during the week being studied. These top 10 local journalists included news workers at print, television and news radio outlets who produced more than 4,600 total tweets during that time.

Local activists were pinpointed through a multi-step process. First, we searched media reports to compile sources identified as local activists, protestors or organizers, and then ascertained whether they were active on Twitter in the week following Brown's

death. Additionally, we scanned tweets using prevalent hashtags at the time, including #Ferguson and #MikeBrown, and noted users who self-identified as activists in the St. Louis area but had not been quoted in the media. These searches yielded about 30 activists. The top 10 were selected based upon their Ferguson-related tweets, resulting in almost 4,400 messages. Among the activists were local clergy and political leaders, as well as “regular” citizens.

Sampling Procedure

Only tweets related to Ferguson were included in the collection of posts from journalists and activists. Each handle for the top 10 journalists and the top 10 activists were entered separately into a random number generator, and a random sample based on a 95% confidence level was selected and coded from the population. This method allowed us to randomly sample tweets proportional to the volume of each handle’s population, and a total of 2,061 tweets from the journalists and a total of 1,843 tweets from the activists were collected. For the present exploratory study, 688 tweets were randomly coded for the analysis.

Coders, Training, and Intercoder Reliability

Three coders, including the two researchers, served as coders. Coders participated in two one-hour training sessions, and then independently coded 390 (10% of the random sample) tweets. Intercoder reliability was calculated using Scott’s Pi formula, and all variables established sufficient intercoder reliability coefficients, ranging from .75 to 1.0.

Variables for Each Tweet

Each tweet was coded for Twitter metadata, activist communication strategy, primary message frame, and source of the tweet. Table 1 shows the comprehensive list of variables coded for each tweet.

Table 1: Variables for each tweet

Variable	Description	Subcategories
Number of hashtags	Frequency of hashtag use.	
Hashtags used	The first and second word/phrase following a pound (#) sign.	
Retweets	Number of times a tweet was retweeted by other people.	
Favorited	Number of times a tweet was favorited by others.	
Type of activist community strategy	Drawn from typology developed by Jackson (1987), Derville (2005) and Taylor et al. (2001). Each strategy was coded as present (1) or absent (0).	1. Symbolic strategy 2. Information strategy 3. Organizational strategy 4. Litigation strategy 5. Civic disobedience 6. Dialogic strategy 7. Emotional strategy 8. Media only strategy
Primary message frame	Developed from preliminary coding. Each strategy was coded as present from one of the fourteen categories.	1. Criticism of police 2. Criticism of society 3. Criticism of city 4. Criticism of media 5. Call for action 6. Conversations 7. Support for police 8. Support for activists 9. Support for media 10. Neutral/factual reporting 11. Criticism of looting 12. Support of Brown and family 13. Criticism of protestors 14. Others
Source	The type of individual who produced the tweet was coded as either journalist (1) or activist (2).	

Results

A total of 688 tweets were randomly selected to answer the research questions in this exploratory study. Of these tweets, 428 were from local journalists (62.2%) and 260 (37.8%) were from local activists. The tweets were posted to Twitter in the week following Michael Brown's death, and each tweet pertained to Brown's death and the related unrest in Ferguson, Mo.

RQ1 asked about the general Twitter practices used by local activists and journalists. Twitter meta-data, including the number of times a tweet was favorited or retweeted by other users and whether the tweet was an original tweet or a retweet, was examined using descriptive statistics.

The number of times a tweet was favorited ranged from 0 (23.4%, *n* =161) to 18,860 (0.1%, *n* = 1), while the number of times a tweet was retweeted ranged from 0 (15.8%, *n* = 109) to 22,999 (0.1%, *n* = 1). The average number of times a tweet was favorited was 106.56 (S.D. = 808.11), and the average number of times a tweet was retweeted was 183.65 (S.D. = 1042.86). More than 63% of the tweets (63.7%, *n* = 438) were original tweets.

A total of 408 tweets had one or more hashtags (59.3%). Various hashtags were used to tweet about Ferguson. For the first hashtag used in tweets, #ferguson/#Ferguson was

most popular (69.6%, *n* = 284), followed by #MikeBrown/#MichaelBrown (15.9%, *n* = 65). Table 2 shows the complete list of the hashtag categories.

Table 2: Hashtags in Ferguson tweets

First hashtag	*n*	%
Ferguson	284	41.3
MikeBrown/Michael Brown/MikeMike	65	9.4
STL/StLouis	8	1.2
FergusonSolidarity/ Peace4Ferguson	7	1.0
HandsUpDontShoot	6	0.9
Breaking	6	0.9
Locations (NoCo/Normandy/Gaza/Palestine/Chicago)	6	0.9
FergusonShooting	5	0.7
Justice4Mike/JusticeForMikeBrown	5	0.7
Media (KMOV, N4TM, KSDK, RealReporting)	3	0.4
RonJohnson	1	0.1
Others (FlySTL/FreeAntonio)	12	1.7
Total	408	59.3
Second hashtag	*N*	%
Ferguson	46	6.7
MikeBrown/Michael Brown/MikeMike	31	4.5
Justice4Mike/JusticeForMikeBrown	7	1.0
Media (KMOV, N4TM, KSDK, RealReporting)	5	0.7
FergusonSolidarity/ Peace4Ferguson	4	0.6
FergusonShooting	3	0.4
HandsUpDontShoot	2	0.3
STL/StLouis	2	0.3
Locations (NoCo/Normandy/Gaza/Palestine/Chicago)	2	0.3
RonJohnson	1	0.1
Breaking	0	0
Others (FlySTL/FreeAntonio)	4	0.6
Total	107	15.6

RQ2 asked whether the general Twitter practices differed between activists and journalists. Cross-tabulations using Chi-square analysis examined the two groups' use of original tweets and retweets. There were no statistically significant differences between sources on the likelihood of using retweets or original tweets [$\chi^2(1) = 1.94$, $p = .16$]. Both journalists (65.7%, *n* = 281) and activists (60.4%, *n* = 157) were more likely to use original tweets than retweets (Journalists: 34.3%, *n* = 147; Activists: 39.6%, *n* = 103).

Independent t-tests examined whether the number of hashtags, the number of favorite tweets, or the number of retweets differed according to source type. There were no statistically significant differences between journalists (*M* = .77, S.D. = .71, *N* = 428) or activists (*M* = .81, *S.D.* = .95, *N* = 260), t(433) = 20.27, p = .54) for the number of hashtags, number of favorite tweets (journalists: *M* = 124.94, *S.D.* =1002.24, *N* = 428; activists: *M* = 76.31, *S.D.* = 273.27, *N* = 260), *t*(525) = 2.32, *p* = .344), or the number of retweets (journalists: *M* = 197.71, *S.D.* = 1249.89, *N* = 428; activists: *M* = 160.51, *S.D.* = 555.28, *N* = 260), *t*(535) = .948, *p* = .59).

RQ3 asked about the Twitter message strategies used by both activists and journalists; tweets could have multiple strategies. Information strategy (*n* = 465) was the most frequently appearing message strategy among the tweets, with 67.6% of the tweets

conveying some sort of factual information related to the unrest in Ferguson. Emotional strategy (24%, *n* = 165) and dialogic strategy also were popularly utilized (21.1%, *n* = 145). Table 3 illustrates the message strategies used in tweets about Ferguson.

Table 3: Types of message strategies in Ferguson tweets

Message strategy	n	%
Information strategy	465	67.6
Emotional strategy	165	24.0
Dialogic strategy	145	21.1
Symbolic strategy	52	7.6
Organizing strategy	18	2.6
Media-only strategy	14	2.0
Litigious strategy	4	0.6
Civil disobedience strategy	0	0
Total	863	125.5

Note. Tweets could have more than one strategy. N=688

Building upon RQ3, RQ4 explored the differences in the message strategies of local journalists and activists on Twitter in the week following Brown's death. Information-sharing was the most common tactic used by both groups: Almost four-fifths (78.3%, *n* = 335) of journalists' tweets related to Ferguson used an informational strategy, and half (50%, *n* = 130) of activists' tweets did so.

Chi-square analyses with subsequent z-score comparisons found journalists were significantly more likely to use informational strategy $\chi^2(1) = 59.01$, $p < .001$, whereas activists (18.1%, *n* = 47) were significantly more likely than journalists to use symbolic strategy $\chi^2(1) = 66.19$, $p < .001$ and organizing strategy (5.0%, *n* = 13), $\chi^2(1) = 9.32$, $p < .01$. The groups were fairly similar in their use of dialogic strategy, with 23% (22.9%, *n* = 98) of journalists' tweets and 18% (18.1%, *n* = 47) of activists' tweets being used to engage others in conversation. Finally, activists were significantly more likely to use emotional strategy than journalists: local activists relied on emotional appeals as in their messages about 43% (43.1%, *n* = 112) of the time, whereas only 12% (12.4%, *n* = 53) of journalists' tweets did so $\chi^2(1) = 83.27$, $p < .001$. Table 4 illustrates the differences in these groups' message strategies.

Table 4: Cross-tabulation of messages strategies between sources

		Source Type	
		Journalists	Activists
Message Strategy	Information strategy[a]	335 (78.3%)	130 (50%)
	Dialogic strategy	98 (22.9%)	47 (18.1%)
	Emotional strategy[b]	53 (12.4%)	112 (43.1%)
	Media-only strategy	8 (1.9%)	6 (2.3%)
	Symbolic strategy[c]	5 (1.2%)	13 (5.0%)
	Organizing strategy[d]	5 (1.2%)	13 (5.0%)
	Litigious strategy	3 (0.7%)	1 (0.4%)
	Civil disobedience strategy	0 (0%)	0 (0%)
	Total	428 (100%)	260 (100%)

a = $\chi^2(1) = 59.01$, $p < .001$
b = $\chi^2(1) = 83.27$, $p < .001$
c = $\chi^2(1) = 66.19$, $p < .001$
d = $\chi^2(1) = 9.32$, $p < .01$

RQ5 identified the primary frames used in the Twitter messages related to Ferguson. The most frequent message frame was objective/factual reporting (51%, *n* = 351). The totals rapidly dropped, with the second most common frame being one of conversations (17%, *n* = 117) and the third (9.4%, *n* = 65) was tweets that supported activists. Because the message frames were so widely spread among the remaining tweets, the frames were recoded into five groups. Table 5 shows the recoded groups and totals.

Table 5: Primary message frames in Ferguson tweets

Primary message frame	*n*	%
Objective/factual reporting	351	51.0
Opinion	144	20.9
Conversations	117	17.0
Others	49	7.1
Calls to action	27	3.9
Total	688	100

RQ6 parses the different frames used by local journalists and activists in their Twitter messages. Activists were statistically significantly more likely to use opinions (41.5%, *n* = 108), calls to action (6.5%, *n* = 17), and others (10.8%, *n* = 28) compared to journalists. Journalists were statistically significantly more likely use objective/neutral reporting (63.8%, *n* = 273) and conversations (20.6%, *n* = 88) compared to activists $\chi^2(4) = 144.49$, $p < .001$. Table 6 shows the different frames these groups used.

Table 6: Cross-tabulation of primary message frame between sources

		Source Type	
		Journalists	Activists
Primary Message Frame	Objective/Factual reporting	273 (63.8%)	78 (30%)
	Conversations	88 (20.6%)	29 (11.2%)
	Opinion	36 (8.4%)	108 (41.5%)
	Call to action	10 (2.3%)	17 (6.5%)
	Others	21 (4.9%)	28 (10.8%)
	Total	428 (100%)	260 (100%)

$\chi^2(4) = 144.49$, $p < .001$

Discussion

This pilot study had three main purposes in examining the ways in which local journalists and activists used Twitter as a communication tool in the week following Michael Brown's death: 1) to develop a general overview of the practices used by local journalists and activists; 2) to investigate whether the two groups used different message strategies; and 3) to identify the different ways in which the news professionals and activists framed their messages about the crisis in Ferguson.

A majority of the tweets in this research were original tweets, suggesting that local journalists and activists recognized the public's desire for new information related to Ferguson. The news workers and activists also viewed hashtags as a valuable way to help other Twitter users connect their tweets to the unrest in Ferguson, with almost 60% of journalists and activists using hastags in their tweets. The regular use of hashtags indicates that journalists and activists saw themselves as having something to contribute to the developing narratives about Ferguson and wanted to ensure others would benefit from their knowledge or thoughts. It was through the consistent use of hashtags that particular ones became dominant and set the agenda for how the story would trend on Twitter and beyond—it is how #Ferguson came to represent so many of the issues wrapped up in references (including in this research) to "Ferguson."

Users' retweets and favorites of journalists' and activists' tweets reinforced the prominence of the journalists' and activists' tweets. The averages of the retweets and favorites suggest the two groups' tweets resonated with other users, and likely helped spread familiarity with particular hashtags as well.

The overall Twitter practices of local journalists and activists in this study did not different significantly. They appear to have a similar understanding of common Twitter practices, such as using hashtags and earning retweets or favorites from others. These findings suggest local journalists and activists have a fairly level playing field, so to speak, in their approach to message strategies and framing those messages.

This research builds upon message strategies developed by Jackson (1982) and Derville (2005), as well as the dialogic strategies that Taylor et al. (2001) noted were emerging through online tools. By including all of those strategies in this research, we have captured a more complete picture of the message tactics used by activists and journalists. In particular, it was important to apply these strategies to local journalists because of their personal connections to the area as well as the greater likelihood that journalists will express their opinions more freely during crises and in online venues (Lasorsa et al., 2012; Riegert & Olsson, 2007). Recognizing these strategies do not occur in a vacuum, they were coded for multiple types of codes within a single tweet.

Both groups focused on their ability to supply information about the Ferguson crisis, demonstrating their understanding of the public's desire to know more about the situation

and using Twitter's capacity to provide a steady stream of real-time updates. Journalists and activists both were acting as gatekeepers, although statistical tests showed journalists were significantly more likely to use an informational strategy. This is not surprising given previous research (i.e. Weaver et al. 2007) on journalists' commitment to professional standards that include objectivity and getting information to the public quickly, as well as research that found news workers will rely on journalistic norms when covering crises (Riegert & Olsson, 2007).

Activists may realize that also being a continuous source of information allows them to shape the "narrative of Ferguson" by drawing attention to the situation and persuading people to join their efforts. Their desire to influence others is evidenced by the activists' more present use of emotional appeals (e.g., "I've never been so enraged in my life. Who can the people trust? Not those who are sworn to protect and serve. #Ferguson") as a message strategy as well as organizing (e.g., "We passed out an outrageous number of lunches/dinners & cooling towels today. People where blown away by our generosity. By YOUR generosity") and symbolic strategies (e.g., "2night at 7pm please join me & @StlClergy leaders at a Call to Action Rally at Christ the King UCC (11370 Old Halls Ferry, 63033) #ferguson") all of which were statistically significant differences compared to journalists. Derville (2005) suggested that activists, especially during situations where their voices seem to be suppressed, implement more radical tactics such as emotional outbursts, defamatory speech and boycotts. Despite not being an "organized" advocacy group, the local activists in Ferguson used strategies similar to more established organizations.

Both groups engaged in fairly equal dialogic strategies, reinforcing Twitter's ability to help people connect & engage in conversations. Although their message strategies suggested occasional crossovers in the tactics of local journalists and activists, the frames they produced aligned closely with the expected practices of each group. Through their message strategies, local journalists and activists were creating frames that fit the status quo for each group.

We initially coded for 14 frames, which resulted in frequent empty cells when comparing local journalists and activists. The categories were collapsed into primary frames for tweets that provided objective information, presented opinion, called others to action, attempted to engage others in conversation, or were part of an "other" category. From these five basic groups, activists and journalists used frames that reinforced the practices expected of each group and reflected the ways in which the audience comes to know and understand journalists and activists.

Activists used Twitter to voice opinions related to the unrest in Ferguson, which included a range of posts that, for example, criticized police (e.g., "I'M HERE TO TELL YOU THAT FERGUSON P.D. IS A BUNCH OF LIARS FROM THE PITT OF HELL... AN ENTIRE COMMUNITY SAW WHAT REALLY HAPPENED!!!!!!!") and criticized society (e.g., "I still find it incredible that people from #Gaza found out about #Ferguson and offered advice but the US still hasnt done anything"). Similarly, they issued calls to action through their tweets, asking people to sign petitions, engage in the protest, provide support, or

retweet their message (e.g., “Hey @footlocker your key demographic is under attack in Ferguson, MO. The ones that spent back to school $ with u. Looking to help?”; “UNITY march tonight 5pm starting at the Mobile Gas Station (Chambers & W. Florissant) Bring an actual bible. @StlClergy #dontshoot #ferguson”). They used the opinion and calls to action frames to challenge current conditions of the crisis and promote change.

Journalists, on the other hand, were far less likely to use frames that expressed their opinions or encouraged others to participate in events related to Ferguson. Journalists centered their messages on conversations, such as to fact check (e.g., “Maybe, also near airport. MT @brianstelter: @RobertDEdwards this is mostly to stop news choppers... is that right? http://t.co/emXJEKNnMu”) and objective reports (e.g., “#Ferguson police chief promises a change in tactics tonight. Promises less aggressive, militaristic approach”). Most objective reports focused on real-time reporting of conflicts in and around Ferguson (e.g., “Tear gas fired into the crowd of protestors & Sen. @MariaChappelleN informed me that she is trapped & can’t get out) while larger issues of inequality and opportunity did get some coverage as well (e.g., “Black Missourians were 66 percent more likely to be stopped by police in 2013”). Journalists did help to keep the audience informed via Twitter but mostly on issues of law and order.

In summary, the local journalists and local activists in this exploratory study used message strategies and frames on Twitter in ways consistent with established practices for each group. They shared an important focus on providing information to the public through Twitter in what Papacharissi and de Fatima Oliveira (2012) called “instantaneity” (p. 273). This phenomenon describes how journalists and other individuals live-tweet events as they occur, updating posts every few seconds in what may appear to be unfiltered reports from the scene. Instantaneity involves sharing information much faster than traditional media can broadcast or print news but it is an incomplete narrative because the tweets are usually purely reactionary—the disseminators of that information have little time process and report on what they are seeing and experiencing. This lack of time to reflect on the larger societal issues that were the catalysts of the protests and demonstrations pushes journalists and activists to rely on the routines of their work to guide their communication during crises. As the first days of the events in Ferguson unfolded and the world reacted, journalists and activists used the relative safety of their “known” roles to approach the crafting of their messages and the framing of the Ferguson narrative.

Limitations and Future Research

This study is admittedly limited by its small sample size, and findings here may not fully represent the scope of journalist and activist communication practices during the Ferguson crisis. However, the value of this study is that it is one of the first to explore and compare the type of communication patterns that took place on Twitter at the start of the crisis. As such, this study’s value is as an exploratory pilot study, and the findings call for additional research into the varied uses of Twitter during man-made crises.

Methodological limitations prevent us from making causal links. While the descriptive

nature of content analysis suits the exploratory purpose of the study, we cannot make claims on whether the message strategies on Twitter brought attitudinal or behavioral change, nor can we accurately say that the coded strategy was the actual intent.

Therefore, future research should replicate this study with a larger sample to explore the descriptive power of the variables identified in the present study. Avenues to be explored include examining the development of particular hashtags throughout the course of the crisis, as well as investigating whether patterns of message strategies were used in individual tweets and whether certain frames more often used particular hashtags. A separate future study might focus exclusively on the framing of race and racial issues in tweets related to Ferguson. Additionally, future research could apply methodological approaches used in agenda-setting studies to assess public reliance on Twitter as a news source and perception of issues related to Ferguson.

A follow-up study could apply qualitative methods, such as in-depth interviews with the top 10 journalists and the top 10 activists, to reveal the actual motivations and intentions behind the tweets related to the unrest in Ferguson. This would compliment the present study by offering a more comprehensive picture of the crisis communication tactics used. Finally, a longitudinal study could be conducted by extending the time frame to include tweets that go beyond the first week to those that came out after the grand jury decision, which would allow us to compare the development of message strategies as well as the narratives regarding Ferguson.

References

Aldoory, L., & Grunig, J. E. (2012). The rise and fall of hot-issue publics: Relationships that develop from media coverage of events and crises. *International Journal of Strategic Communication*, 6(1), 93-108.

Anderson, D. S. (1992). Identifying and responding to activist publics: A case study. *Journal of Public Relations Research*, 4(3), 151-165.

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230.

Budarick, J. (2011). Media narratives and social events: The story of the Redfern riot. *Journal of Communication Inquiry,* 35(1), 37-52.

Cammaerts, B. (2008). Critiques on the participatory potentials of Web 2.0. *Communication, Culture & Critique*, 1(4), 358-377.

Cheney, G., & Vibbert, S. L. (1987). Corporate discourse: Public relations and issue management. In L. L., Putnam, K. H., Roberts, & L.W. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary perspective*, (pp. 165-194). Newbury Park, CA: Sage.

Crable, R. E., & Vibbert, S. L. (1985). Managing issues and influencing public policy. *Public Relations Review*, 11(2), 3–16.

Derville, T. (2005). Radical activist tactics: Overturning public relations conceptualizations. *Public Relations Review*, 31(4), 527-533.

Detenber, B.H., Gotlieb, M.R., McLeod, D.M., & Malinkina, O. (2007). Frame intensity effects of television stories about a high-visibility protest issue. Mass *Communication & Society*, 10(4), 439-460.

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51-58.

Freivogel, W. (2014, Oct. 30). What we know—and don't know—about Michael Brown's shooting. *St. Louis Public Radio*. Retrieved from http://news.stlpublicradio.org/post/what-we-know-and-dont-know-about-michael-browns-shooting

Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, 95(1), 1-37.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience. Cambridge*, MA: Harvard University Press.

Grunig, L. A., Grunig, J. E., & Dozier, D. M. (2002). *Excellent public relations and effective organizations: A study of communication management in three countries*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Harlow, S., & Guo, L. (2014). Will the revolution be Tweeted or Facebooked? Using digital

communication tools in immigrant activism. *Journal of Computer Mediated Communication*, 19(3), 463-478.

Harlow, S. & Harp, D. (2012). Collective action on the web. Information,*Communication & Society*, 15(2), 196-216.

Heath, R. L. (1998). New communication technologies: An issues management point of view. *Public Relations Review*, 24(3), 273–288.

Hermida, A., Lewis, S. & Zamith, R. (2014). Sourcing the Arab Spring: A case study of Andy Carvin's use of sources on Twitter during the Tunisian and Egyptian revolutions. *Journal of Computer-Mediated Communication*, 19(3), 479-499.

Hinsley, A. (2014, August). *The resilience of journalists who remain: A longitudinal study of technological and economic changes at newspapers and journalists' perceived identities*. Paper presented at the Association for Education in Journalism and Mass Communication annual conference: Montreal, Quebec.

Jackson, P. (1982). Tactics of confrontation. In J. S. Nagelschmidt (Ed.), *The public affairs handbook* (pp. 211–220). New York, NY: American Management Association.

Jacques, T. (2006). Activist 'rules' and the convergence with issue management. Journal of Communication Management, 10(4), 407–420.

Lasorsa, D., Lewis, S., & Holton, A. (2012). 'Normalizing' Twitter: Journalism practice in an emerging communication space. *Journalism Studies*, 13(1), 19-36.

Leitch, S., & Neilson, D. (2001). Bringing publics into public relations: New theoretical frameworks for practice. In R. L. Heath (Ed.), *Handbook of public relations* (pp. 127–138). Thousand Oaks, CA: Sage.

Matsa, K.E. & Mitchell, A. (2016, March 14). Eight key takeaways about social media and news. *Pew Research Journalism Project.* Retrieved from http://www.journalism.org/2014/03/26/8-key-takeaways-about-social-media-and-news/

Moon, S.J. & Hadley, P. (2014). Routinizing a new technology in the newsroom: Twitter as a news source in mainstream media. *Journal of Broadcasting & Electronic Media* 58(2), 289–305.

Norris, P. (2004, October). Young people and political activism: From the politics of loyalties to the politics of choice? Paper presented at the conference Civic engagement in the 21st Century: Toward a Scholarly and Practical Agenda, Los Angeles, CA.

Oriella PR Network. (2013). The new normal for news: Oriella digital journalism study. Retrieved from http://www.oriellaprnetwork.com/research

Papacharissi, Z. & de Fatima Oliveira, M. (2012). Affective news and networked publics: The rhythms of news storytelling on #Egypt. *Journal of Communication 62*(2), 266-282.

Paulussen, S. & Harder, R.A. (2014). Social media references in newspapers. *Journalism Practice 8*(5), 542-551.

Riegert, K. & Olsson, E. (2007). The importance of ritual in crisis journalism. *Journalism Practice*

1(2), 143-158.

Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*, 57(1), 9-20.

Sigal, L.V. (1973). *Reporters and officials: The organization and politics of newsmaking*. Lexington, MA: D.C. Heath & Company.

Smith, S. (1997, March 15). Developing new reflexes in framing stories. Paper presented at the Pew Center/RTNDF workshop “Civic Journalism: Doing it Daily,” Chicago. Retrieved December 8, 2014 from: http://www.pewcenter.org/doingcj/civiccat/displayCivcat.php?id=97

Smith, M. F. (2005). Activism. In R. L. Heath (Ed.), *Encyclopedia of public relations* (pp. 5–9). Thousand Oaks, CA: Sage.

Smith, M. F. & Ferguson, D. P. (2010). Activism 2.0. *The SAGE handbook of public relations*, 395-408.

Smith, M.A., Rainie, L., Shneiderman, B. & Himelboim, I. (2014, Feb. 20). Mapping Twitter topic networks: From polarized crowds to community clusters. *Pew Research Internet Project.* Retrieved from http://www.pewinternet.org/2014/02/20/mapping-twitter-topic-networks-from-polarized-crowds-to-community-clusters/

Sommerfeldt, E. J. (2013). Online power resource management: Activist resource mobilization, communication strategy, and organizational structure. *Journal of Public Relations Research,* 25(4), 347-367.

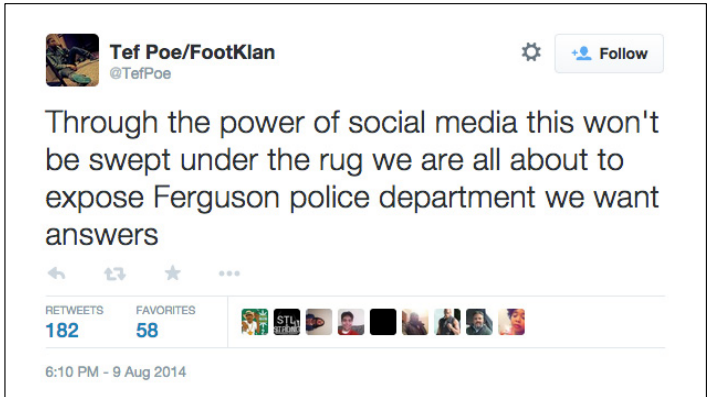
Taylor, M., Kent, M. L., & White, W. J. (2001). How activist organizations are using the Internet to build relationships. *Public Relations Review*, 27(3), 263-284.

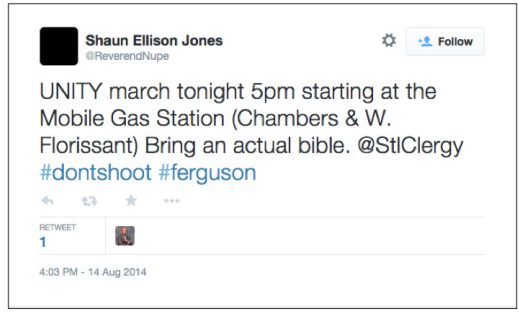
Tilly, C. (1978). *From mobilization to revolution*. New York: McGraw-Hill. Valenzuela, S., Arriagada, A. & Scherman, A. (2012). The social media basis of youth protest behavior: The case of Chile. *Journal of Communication* 62(2), 299-314.

Weaver, D.H., Beam, R.A., Brownlee, B.J., Voakes, P.S. & Wilhoit, G.C. (2007). *The American Journalist in the 21st century: U.S. news people at the dawn of a new millennium*. New York, NY: Lawrence Erlbaum.

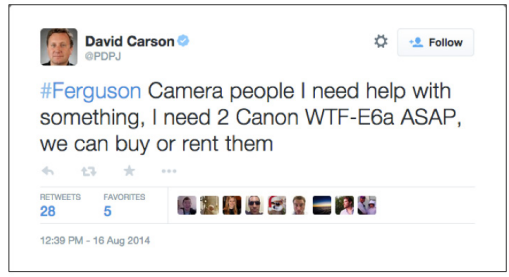
Appendix: Sample tweets from activists and journalists

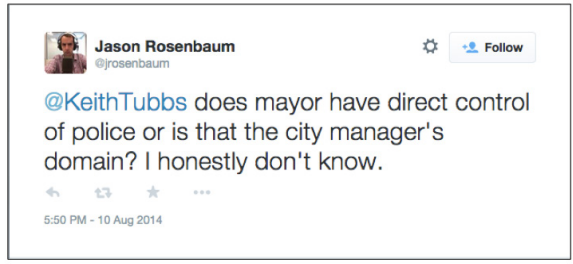
Activist tweets





Journalist Tweets





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Picking the NYT Picks: Editorial Criteria and Automation in the Curation of Online News Comments

Nicholas Diakopoulos

Journalists have a propensity to select online comments for publication according to editorial conceptions of quality content. This work considers various criteria for identifying quality user contributions for publication, evaluates how these criteria manifest in New York Times "Picks" comments, and operationalizes three such criteria computationally. Results indicate that many of the criteria enumerated from the literature do manifest in NYT "Picks" comments more so than non-selected comments, that most criteria are adequately rated by untrained non-professionals, and that relatively simple algorithms can be used to automatically assess some of these criteria. Implications for future online commenting experiences are discussed.

Introduction

The role of online comments on news sites is becoming an increasingly contentious subject as publishers are beginning to challenge the conventional wisdom of providing a space for commentary in response to articles, playing out the tension between the open and participatory nature of user-generated content (UGC) and the norms and goals of professional journalists seeking to control content (Lewis, 2012). Concerns over UGC, and specifically of online comments, by professionals often reflect the potentially damaging effects of low-quality content, such as defamation, brand damage, abusive comments, or injured relationships to community sources (Canter, 2013; Diakopoulos & Naaman, 2011) and many journalists continue to maintain an aloofness and disinterest in engaging with online discussion spaces (Meyer & Carey, 2013). Recently several prominent sites like Re/Code, Popular Science, and Reuters have altogether moved away from having comments on their sites.

Yet there is recognition amongst journalists that audience members can be quite knowledgeable on certain topics; editors see their own role as moderators, filtering user contributions for quality (Hermida & Thurman, 2008). Professionals have thus become more comfortable with employing UGC by imposing their pre-existing news selection processes and styles (Harrison, 2010). A survey of 219 news professionals in Britain found that 90% agreed that journalists' role should be to "filter good information from bad—not to publish anything we get" (Singer, 2010, p. 137). Still, the additional

commercial value of having more content, and the normative goal of facilitating civic discourse come into tension with staffing constraints and the time and resource heavy approach towards engagement and moderation (Harrison, 2010; Singer, 2010; Usher, 2014). This dilemma between a desire for control and maintenance of quality on one hand, and the realities of curation, moderation, and economics that are needed in order to achieve this quality on the other hand, is not easily resolved. Nonetheless, this paper seeks to make progress by first identifying journalistic criteria that are being applied in online comment selection, and then exploring the possibilities for implementing those criteria in computational algorithms that may enable the scalability of comment moderation via automation.

In particular this paper first examines the existence of various editorial criteria that may be applied in the selection of high quality comments by the New York Times as "NYT Picks", and then investigates the extent to which a subset of these criteria can be operationalized computationally in an effort to identify quality comments at scale. Thus this paper seeks to explore the possibilities for maintaining professional journalistic goals and editorial criteria for selecting online comments via automation. This paper contributes (1) a review of the literature on editorial criteria applied to selecting user contributions in different contexts, (2) a crowdsourcing experiment showing that these criteria are manifest in online comments at the New York Times chosen as "NYT Picks", and (3) an examination and validation of computational operationalizations of three of these criteria. This work posits an extension of the notion of robot journalism currently explored in tasks of reporting, writing, and data monitoring (Broussard, 2014; Carlson, 2014; Shearer & Simon, 2014) to the process of comment moderation. The implications of editorial support algorithms in comment moderation for the end-user experience, and for explicit embedding of journalistic criteria into technologies are discussed.

Literature Review

Journalists' concerns over discourse quality and their urge to apply quality criteria to shape and enhance that discourse are not unfounded. Recent studies have shown the potentially detrimental effect of unchecked and uncivil comments, such as polarized risk perceptions of content (Anderson et al., 2014) as well as the prevalence of incivility in online news discourse (Coe, Kenski, & Rains, 2014) and the role that anonymity might play in the quality of discourse that emerges (Santana, 2014). One approach to improving discourse quality that has mounting evidence of effectiveness is to signal norms and expectations for behavior (Jomini Stroud, Scacco, Muddiman, & Curry 2014; Manosevitch, Steinfeld, & Lev-On, 2014; Sukumaran & Vezich, 2011). By modeling and signaling expected behavior and tone in comments, and by cueing users in various ways, user contributions can be modulated in the direction of higher quality discourse. For instance, by having a reporter engage in a news outlet's comment threads on Facebook, (Jomini Stroud et al., 2014) found lower levels of incivility and a greater use of evidence in comments. An experiment by (Manosevitch et al., 2014) found that sticky textual reminder cues within a discourse about Israeli security policy promoted quality of deliberation with respect to issue relevance, expressed opinions, and supporting arguments. Another experiment by (Sukumaran & Vezich, 2011) showed

that thoughtfulness cues in comments led to participants contributing longer comments, spending more time writing those comments, and provided more issue relevant contributions.

Although not widespread, outlets like The Washington Post have dabbled in using a “Post Recommended” badge for outstanding comments, and the focus of this research, The New York Times, has a feature called “NYT Picks” that serves to highlight professionally curated comments. To the extent that new techniques become available to scale up the selection of such high quality material, highlighting that material on a site may be a way to signal expectations, create cues for behavior, and create a virtuous feedback loop for the development of more meaningful and high quality discourse. Although the effects of such cues are not evaluated in the current study, the work explores possible algorithmic approaches to identifying high quality comments that may enable such a strategy at scale by a news outlet in the future. Next, relevant editorial criteria that have been applied to selecting user comments in various journalistic contexts are reviewed.

Editorial Criteria in Comment Selection

Editorial criteria can be applied in at least a couple different ways in moderating an online comment forum. Negative criteria encompass indicators that are used to exclude or otherwise de-emphasize comments from the discourse and have largely been used to buttress against incivilities, like ad hominem attacks, profanity, or other abusive behaviors (Coe et al., 2014) that may emerge in open forums. Technologies have been developed to help cope with the scale of online commenting sections and to aid in the automatic identification of personal insults, profanity, or other inappropriate content (Owseley Sood, Churchill, & Antin, 2012). Some of these techniques are baked into standard comment platforms like Disqus, or are available via third party plugins like KeepCon (http://keepcon.com/). On the other hand, positive editorial criteria can also be applied in an effort to elevate or highlight contributions that moderators determine are worthy. The focus on this paper is on these positive, inclusionary criteria that are applied by journalists in their efforts to editorially shape user-generate content.

In particular let us first review a number of studies in the literature that describe journalistic efforts to identify, curate, and highlight high quality contributions from the public across different forums such as traditional letters to the editor (Wahl-Jorgensen, 2001, 2002), online comments that were remediated for print publication (McElroy, 2013), on-air radio comments (Reader, 2007), as well as purely online comments (Diakopoulos, 2015). A set of 12 criteria that have been reported in the literature across these various contexts includes:

- **Argument Quality**. Reich indicates that argument quality is a dimension along which journalists select for comments (Reich, 2011). Although he does not elaborate on this we might interpret argument quality along the lines of validity in terms of whether a comment expresses a well-grounded and justifiable argument that warrants claims with evidence.

•**Criticality**. "Critical" has been noted as an attribute that was sought by producers at NPR looking to select letters to be read on-air (Reader, 2007). Such constructively critical comments are at times useful as they provide feedback that can lead to factual corrections (Reich, 2011).

•**Emotionality**. The study of traditional letters to the editor sections at newspapers has shown a predilection for "emotionally charged, personal stories of individuals" (Wahl-Jorgensen, 2001). A content analysis study by McElroy also found that from a sample of 309 printed reader comments (selected by editors from online comments), about 45% expressed either a positive or negative tone (McElroy, 2013).

•**Entertaining**. In the current competitive media environment comments and letters can also offer opportunities for readers to engage and be entertained and humored as they are exploring the discourse. In her study of editorial criteria applied to letters to the editor Wahl-Jorgensen found entertainment to be an important dimension, and as one of her interviewees remarked, "some people like a local newspaper basically because of the spiciness of the letters." (Wahl-Jorgensen, 2002). Moreover, studies of comment reading motivations show that a desire to be entertained is a substantial draw for some readers (Diakopoulos & Naaman, 2011).

•**Readability**. The "readability" or more specifically criteria related to the style, clarity, adherence to standard grammar, and degree to which a comment is well-articulated plays a substantial role in editorial selection; "Well written letters are better than poorly written letters" (Wahl-Jorgensen, 2002, p. 77). The degree to which letters were articulate and clear were factors used at NPR in selecting on-air letters (Reader, 2007).

•**Personal Experience**. Personal experiences and perspectives have been shown to be selected by journalists across a variety of contexts. A content analysis of NPR letters that had been selected to air found that 43% of those letters contained "personal observations or historical perspectives from listeners" (Reader, 2007). McElroy's study of online comments that had been selected for printing found that 72% of those selections offered a personal viewpoint (McElroy, 2013). Wahl-Jorgensen posited that the editor's ideology favored concrete personal experiences rather than drawing on abstract ideas (Wahl-Jorgensen, 2001). Broader scholarship relating to deliberation has shown the important role that personal experiences play in strengthening deliberative processes (Manosevitch & Walker, 2009).

•**Internal Coherence**. Oftentimes comments include discussions between multiple contributors who may ask questions or otherwise engage in debate and dialogue (Diakopoulos & Naaman, 2011; Hullman, Diakopoulos, Momeni, & Adar, 2015). However some editors have noted that it can be easier to select a comment for print publication if it is self-contained. It needs to make

sense on its own and so shouldn't refer directly to another comment or to too specific an element of the story (McElroy, 2013).

•**Thoughtfulness**. The degree to which a comment is thoughtful, substantive, and interesting in its expression also plays into editorial decisions in comment curation (McElroy, 2013; Reader, 2007).

•**Brevity**. Brevity is an editorial dimension that emerged to cope with the reality of newspaper production: limited space (Wahl-Jorgensen, 2002). Other media, like radio, have an analogous constraint on time (Reader, 2007). Aside from the limited resource of attention for readers, these other media-specific production constraints do not necessarily hold in the online space however.

Additionally there are editorial criteria that may apply not only to a single comment in isolation, but rather to the context of a set of comments or of a comment in relation to other media like a news article. Curation is not only about the selection of an individual comment, but also of how that comment relates to other selected contributions. The overall gestalt of the selections in a collection can be important. These criteria include:

•**Relevance**. Letters to the editor are often selected because they address issues or events that have already been put on the agenda by the news outlet. In terms of an editor selecting a letter, "Regular citizens' attempts at introducing their own topics to the agenda will almost invariably fail" (Wahl-Jorgensen, 2002, p. 73). More recently, the importance of relevance in editorial selection of online comments has been confirmed in a study of NYT Picks comments which showed that editors' selections were on average 46% more relevant to the news article they were referring to than non-editors' selections, according to a similarity score of word vectors between a comment and article (Diakopoulos, 2015).

•**Fairness**. Issues of fairness in representation of a debate arise when selecting letters to the editor (Reich, 2011), reflecting values about balanced representation of issues (Kovach & Rosenstiel, 2007). This can perhaps be generalized to a notion of diversity amongst perspectives, opinions, or other key demographic dimensions when representing the different voices on an issue.

•**Novelty**. Measures of uniqueness or novelty amongst other contributions are likewise dependent on the overarching context of discourse both on a specific article and amongst different articles, perhaps even across multiple media outlets that are addressing similar news events (McElroy, 2013; Reich, 2011). A key difficulty in operationalization is whether novelty is meant in a local, contingent, or personal reference, or if uniqueness should be understood amongst a knowledge community or even more globally.

In the current study, the focus is on the first nine of these criteria (argument quality,

criticality, emotionality, entertaining, readability, personal experience, internal coherence, thoughtfulness, and brevity) using crowdsourcing and automated content analysis techniques. The last three criteria, including relevance, fairness, and novelty are much more challenging to measure due to their reliance on wider context and relationships amongst media. There has been some previous work on these criteria in related domains. For instance, Diakopoulos has previously shown the importance of relevance in editorial selections of comments (Diakopoulos, 2015) and other research on news articles has considered algorithmic approaches towards selecting, for instance, politically diverse article sets (Munson, Zhou, & Resnick, 2009). However, in the current study the focus is on the initial nine criteria, while the development of more complex methods for the manual content analysis or automated measurement and assessment of the three criteria that are contingent on broader contexts is left for future work. Next a study is presented to examine how the nine criteria apply in the context of online news comments.

Study

Here I consider a specific news site, the New York Times, and the editorial criteria that may manifest in the comments that are published there. In particular, the New York Times has a feature called “NYT Picks” which are a professionally curated set of “the most interesting and thoughtful” comments.(1) These comments are made available in a filtered tab within the interface that sets them apart and labels them as “NYT Picks”. The New York Times pre-moderates all comments on the site, meaning that no comment is published without it first being read by a moderator. This process ensures a generally high quality level for comments since the negative criteria for comment exclusion such as obscenity, personal attacks, or other spam have already been applied.

In particular the manifestation of the nine criteria articulated above is studied in New York Times’ comments, comparing “NYT Picks” comments to non-“NYT Picks” comments. The research questions driving the study are:

RQ1: Do “NYT Picks” comments reflect the positive editorial criteria that have been identified in the literature?

RQ2: Can algorithmic approaches to assessing these editorial criteria be developed?

In order to answer these questions crowdsourced ratings of the various editorial criteria were gathered and automated techniques were used to calculate some metrics, as described next.

Data Collection

Comment data was collected programmatically via the New York Times Community API2 which makes available all of the comments that are published on the site. (2) All comments made in the month of October 2014 were gathered (224,382 in total, including

5,174 “NYT Picks”), including full text of each comment as well as relevant metadata such as whether the comment had been selected by an editor or moderator as an NYT Pick. Data was stored in a MySQL database for further analysis. From the 224,382 comments collected 500 were randomly sampled (250 each from “NYT Picks” and non-“NYT Picks”) in order to arrive at a manageable sample size for the crowdsourcing task described next.

Crowdsourced Ratings

Human ratings of eight of the nine criteria under study (excluding brevity as it is easiest to measure directly and automatically based on text length) were gathered via crowdsourcing. Each of the criteria was rating on a scale from one to five (See Appendix A for the instrument). Ratings were collected using Amazon Mechanical Turk (AMT), a crowdsourcing platform that allows contributors to complete “micro tasks” for small amounts of money. Three independent workers rated each of the 500 comments selected for the study along each of the eight dimensions. The three ratings were averaged to arrive at a final aggregate rating for each comment. Workers were paid 15 cents for each set of eight ratings that they completed for a given comment—a reasonable wage that was determined by considering the average amount of time taken to complete the task in a pilot.

In order to improve the validity of crowdsourced data collection several steps were taken. Studies have shown that it is beneficial to integrate “checks” into the tasks, which force the worker to attend to the content being tagged or rated (Kittur, Chi, & Suh, 2009). In the task, users were asked to supply three keywords that described the content of the comment, thus cueing raters to more deeply process and understand the content of each comment. Amazon also makes available various filters that allow task requesters to restrict who is allowed to complete a task. Workers were restricted to only those who have a reliable history (more than 98% tasks approved) and a substantial history (more than 1,000 tasks completed). Moreover, as cultural context and language ability may be important for interpretation and introduce additional confounds in the reliability of content analysis (Riffe, Lacy, & Fico, 2005) workers were limited to only those that have accounts in the United States or Canada. In the end 1,500 ratings from 89 different workers were collected in about 10 hours.

Despite the lack of training of coders and the wide array of personal levels of knowledge or bias that 89 different coders might have, we find slight to moderate levels of inter-rater reliability. In particular Krippendorff’s alpha was measured for each of the eight crowdsourced criteria using a standard interval measure distance function (Artstein & Poesio, 2008) and find alphas indicating slight to moderate levels of agreement amongst the three raters for all criteria except entertainment; (Argument = 0.32, Criticality = 0.24, Emotionality = 0.16, Entertaining = 0.01, Internal Coherence = 0.20, Personal Experience = 0.22, Readability = 0.21, Thoughtfulness = 0.28). The lack of any reliable signal for the entertaining ratings indicate that individual and subjective personal notions of whether a comment is entertaining may outweigh any underlying generalizable construct as the ratings task was currently framed and defined. The other Krippendorff

alphas suggest that we may draw tentative conclusions based on these ratings. Ratings in the analyses are averaged in order to mitigate noise or subjectivities from the different raters. Moreover, strong claims are not made based on the absolute ratings of any measures, and only general tendencies of aggregate comparisons are considered. As the results will show in the next section, even these relatively blunt measures allow us to expose statistically significant differences between "NYT Picks" comments and non-"NYT Picks" comments.

Automatically Computed Ratings

A longer term research objective, beyond the scope of this paper, is to computationally operationalize all of the above articulated editorial criteria so that they can be automatically applied at scale to help moderators cope with ever increasing numbers of online comments. For now let us set our sights more modestly and consider the computation of three of the nine criteria (Brevity, Readability, and Personal Experience) using relatively simple either off-the-shelf metrics or metrics derived from readily available linguistic resources. The computational operationalization of the remaining six criteria are left for future work.

For brevity, a subjective crowdsourced rating was not collected since the length of a comment can be easily and precisely measured computationally. Using standard natural language processing techniques (Bird, Loper, & Klein, 2009) the full text of each comment in the study is tokenized based on white space and the number of resulting word tokens in the comment is counted. This count becomes the brevity score.

For readability, the crowdsourced ratings are still interesting and useful as subjective assessments of clarity and grammar, but we can also explore a range of readability metrics that have been used in educational settings to automatically score the difficulty of texts including the Flesh-Kincaid score, Gunning-Fog score, Coleman-Liau Index, Automated Readability Index, and SMOG index (McLaughlin, 1969). These scores all attempt to estimate the number of years of schooling that would be needed in order to understand a text and are implemented in open source code that was leveraged.3 Here results are reported using the SMOG index as it was shown to have the highest Pearson correlation *(r* = 0.40) with the crowdsourced ratings. The SMOG index thus becomes the Readability score.

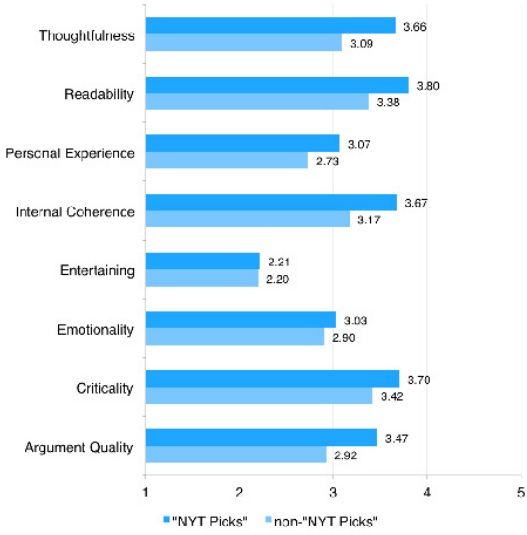
Finally, a new computational operationalization was developed that attempts to score comments based on the degree to which they share personal stories or experiences. The text analysis dictionary LIWC[4] (Linguistic Inquiry and Word Count) was utilized. LIWC is a linguistic resource that is often used in computerized text analysis and has been validated as a way to measure psychologically meaningful constructs by counting word usage in various categories that are defined by dictionaries (Tausczik & Pennebaker, 2010). It was hypothesized that comments which express personal experiences will use more words in LIWC categories "I", "We", "Family", and "Friends" as such terms would reflect personal (first and third person pronouns) and close relational (i.e. family and friends) experiences. Helpfully, the LIWC dictionary also includes colloquial expressions

(e.g. “gf” for “girlfriend” is included in the dictionary), which is well suited to our content domain of casual online communication. The combined dictionary comprises 126 words or word stems (e.g. “acquainta” is the stem of both “acquaintance” and “acquaintances”). Because of the word stems used in the dictionary the Porter stemming algorithm (Porter, 1980) is used in processing the comment text, which is implemented as part of the Natural Language Toolkit (NLTK) (Bird, Loper, & Klein, 2009), and which translates any word into its root stem allowing us to look it up in the dictionary. Each comment is scored by computing the number of stemmed tokens from the comment’s text that are contained in the dictionary, divided by the total number of tokens (i.e. words) in the comment. Thus the score is normalized for the length of the comment. This normalized value becomes the Personal Experience score.

Results

The results presented here address the primary research question of how “NYT Picks” do or do not manifest the various editorial criteria identified in the literature. First let us consider the eight criteria that were rated by crowd workers and compare the ratings for “NYT Picks” and non-“NYT Picks” comments (See Figure 1).

Figure 1. Average ratings of “NYT Picks” and non-”NYT Picks” comments for each editorial criteriathat was rated by the crowdworkers.



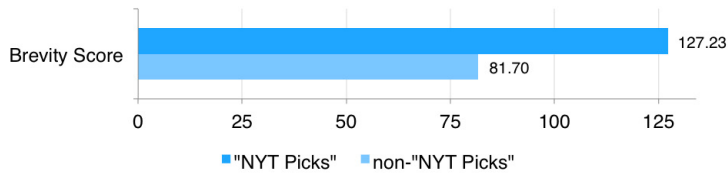
The results indicate that for six of the eight criteria that were crowdsourced (Argument Quality, Criticality, Internal Coherence, Personal Experience, Readability, and

Thoughtfulness) comments that were “NYT Picks” were rated significantly higher than comments that were non-“NYT Picks” (t-tests, $p < .0001$ in all cases). Ratings were anywhere from 0.29 higher on average for Criticality to 0.57 higher on average for Thoughtfulness. In the case of Emotionality a t-test for significance of difference in the means suggests weak evidence that “NYT Picks” were rated higher in terms of their emotion ($t(499) = -1.74$, $p = 0.08$). Finally, the criterion of Entertaining exhibited no statistically significant difference between “NYT Picks” and non-“NYT Picks”, though this is unsurprising as those ratings were not reliable according to the Krippendorff’s alpha that was computed and reported above.

The correlations amongst each pair of criteria show that several of the criteria are highly correlated. For instance, the Argument Quality ratings have a very high Pearson correlation to Internal Coherence ratings ($r = 0.67$), Readability ratings ($r = 0.67$), and to Thoughtfulness ratings ($r = 0.83$). Thoughtfulness and Readability ratings were also highly correlated ($r = 0.70$). The particularly high correlation coefficient for Argument Quality and Thoughtfulness ($r = 0.83$) indicates that these two criteria might be effectively condensed into one scale in future applications of this crowdsourcing task.

The Brevity score, which again is computed as the number of words in a comment, shows that “NYT Picks” comments used on average 127.2 words (SD=72.2), whereas non-“NYT Picks” used far fewer, only about 81.7 words on average (SD=67.4) (See Figure 2). This difference is statistically significant according to a t-test ($t(499) = -7.29$, $p = 1.26 \times 10^{-12}$). Thus “NYT-Picks” comments used about 56% more words per comment than did non-“NYT-Picks” comments, a result that suggests a reversal of the traditional editorial criteria of brevity reported in research on letters to the editor (Wahl-Jorgensen, 2002) or on-air letters (Reader, 2007) and a shift towards editors favoring longer contributions.

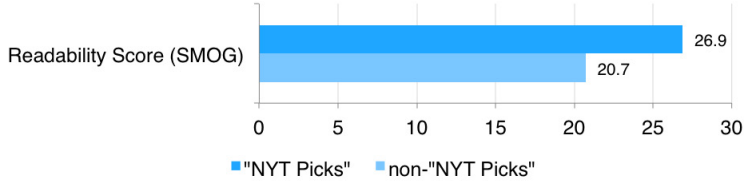
Figure 2. Average Brevity score for “NYT Picks” and non-”NYT Picks” comments, which reflects the number of words in a comment.



The Readability score, which again is the SMOG index or reading grade level of the text, also shows a difference where “NYT Picks” comments are higher (M = 26.9, SD = 8.1) than non-“NYT-Picks” comments (M = 20.7, SD = 9.0) (See Figure 3). This difference is statistically significant according to a t-test ($t(499) = -8.03$, $p = 7.19 \times 10^{-15}$). The Readability score also exhibited a high correlation to the readability ratings collected via crowdsourcing, providing validation of the automated score against human judgments of readability (Pearson’s $r = 0.40$, $p = 1.51 \times 10^{-20}$). These results suggest that the reading

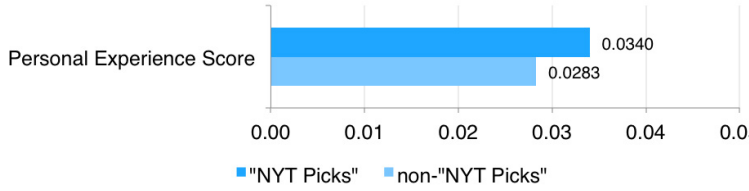
level needed to parse the comments of the New York Times whether selected by editors or not, is very high, requiring years of graduate education. The implications of this finding are considered further in the discussion below.

Figure 3. Average Readability score (SMOG index) for “NYT Picks” and non-”NYT Picks” comments, which reflects the grade level of the text of each comment.



The Personal Experience score, which represents the rate of usage of terms in a set of LIWC dictionaries similarly shows a difference between conditions where “NYT Picks” have a higher average score (M = 0.0340, SD = 0.032) than non-“NYT Picks” (M = 0.0283, SD = 0.033) (See Figure 4). This difference is statistically significant according to a t-test ($t(499) = -1.96$, $p = 0.050$). The Personal Experience score was also highly correlated to the personal experience ratings collected via crowdsourcing, providing validation for the construction of the new metric as a measurement of the rate of usage of terms across key LIWC dictionaries related to personal words and relationships (Pearson’s $r = 0.29$, $p = 3.75 \times 10^{-11}$). Both the Personal Experience score and the Readability score suggest that relatively simple techniques can be used to automatically assess comment texts along editorial criteria that have been shown (by the crowd sourced ratings) to relate to the selection of NYT Picks.

Figure 4. Average Personal Experience score for “NYT Picks” and non-”NYT Picks” comments, which reflects the rate of usage of terms in a set of LIWC dictionaries.



Discussion

The findings presented show that editorial selections as expressed as “NYT Picks” by the New York Times in their online comments do reflect many of the editorial criteria that have been articulated in the literature. With the exception of “entertaining” which was not reliably measured by the crowdsourced ratings apparatus, and with only a weak trend for the “emotionality” rating, the other ratings for argument quality, criticality, internal coherence, personal experience, readability, and thoughtfulness showed reliable and statistically significant differences in average ratings between comments that were “NYT Picks” and those that were not. Moreover, the measurement of a brevity score showed a strong difference in the length of comments that were selected as “NYT Picks”, though not in the direction that the literature suggests. Instead of brevity being a positive criterion, articulated in the literature as a way for journalists to manage limited space or time constraints, in the online space it becomes a negative criterion. Thus, editors at the *The New York Times* preferred longer comments for “NYT Picks”.

The results show that the online comment content of *The New York Times* reflects the application of various professional editorial criteria that have been articulated in other contexts of journalism, such as in selections of letters to the editor. These results mostly support previous observations of the continuity of professional journalistic values as they are carried into online spaces and applied to user-generated content (Harrison, 2010), with the exception of the brevity criterion. Online spaces obviously do not entail the same space constraints of print and thus we observe editorial criteria adapting to allow for longer content in comments online. Perhaps longer comments offer more ground for commenters to express quality and thoughtful arguments. At the same time, the limited resource online is now attention, and a consideration of this reversal of brevity as a selection criteria might be fruitfully pursued from an end-user perspective in future work: Do users prefer reading longer or shorter comments, and how does that interact with their experience of a meaningful discourse?

The slight to moderate inter-rater reliability Krippendorff alphas for the crowdsourced ratings (except for entertaining), also indicate that non-professional human coders with little to no training were able to recognize and apply the various professional criteria used for editorial content selection. This suggests future opportunities for the design of commenting systems that corral and leverage ratings from a community towards the evaluation of comment quality along journalistically important dimensions. For instance, instead of post-moderation of comments only supporting the flagging of comments that break a negative criterion such as spam or incivility (Diakopoulos & Naaman, 2011) community members might also be tasked with tagging or rating comments according to the various positive editorial criteria that have been shown to correlate well with “NYT Picks”. Such a method has been shown to work well in the online Slashdot community (Lampe & Resnick, 2004), as well as in rating other forms of user-generated content like Yelp reviews (Bakhshi, Kanuparthy, & Shamma, 2015), and would represent a shift towards a networked gatekeeping model with the discussion space co-curated by community members (Barzilai-Nahon, 2008). By aligning the dimensions of evaluation of the community with journalistically recognized editorial criteria it may ease the adoption

and acceptance of such an approach by journalists.

The implementation of automated readability and personal experience scores and their validation via correlation to human crowdsourced judgments of those same dimensions offers an exciting new direction and initial demonstration of what may be possible in the future for automated techniques and algorithms that reliably assess journalistically important editorial criteria. This methodology effectively combines manual content analysis methods as a ground truth for assessing the validity of an automated technique (Lewis, Zamith, & Hermida, 2013).

One of the utilities that journalists have found for comments is to identify potential sources for follow-up stories (Hermida & Thurman, 2008). The personal experience score could further enable this by helping to identify comments that are more likely to express information and personal anecdotes that journalists might want to follow-up on as sources, amplifying the value of comments for them. Future work should strive to develop and validate more such automated metrics as in (Diakopoulos, 2015), for example by adapting techniques from computing and information science disciplines such as (Swapna Gottipati, 2012). This will be challenging work and will require not only considering the development of content metrics but also looking at social contexts and user histories as well as the relationships within sets of content in order to consider set-based criteria like novelty or fairness.

Automation of more editorial criteria will raise interesting questions for their deployment and use by journalists, including how algorithmically informed editorial decisions interact with professional norms of control (Lewis, 2012), or redefine labor practices and authority with respect to journalistic practices of reporting (Carlson, 2014; Young & Hermida, 2014), and in this case moderation. New end-user experiences will be enabled while simultaneously reducing the burden of moderation work for journalists, a key concern in the deployment of user generated content by newsrooms (Diakopoulos & Naaman, 2011; Singer, 2010). For instance, end-users might be provided a palette of criteria that they can use and control in order to rank the comments they view. Such an experience would obviate the need for journalists to assess the value of each and every comment, but still provide rankings according to journalistic values and norms for quality content, a value-sensitive design approach (Friedman, Kahn Jr., & Borning, 2006). This would also allow end-users to express different contingent interests in line with a variety of motivations for reading comments as suggested by (Diakopoulos & Naaman, 2011) and adapt their own view of the comments. Again, journalistic norms would set the stage in terms of what metrics are available for ranking and how they are defined computationally, but the end-user would be in control of driving their own experience within that framework.

Adaptability of the criteria that are used to rank comments may also enable different contingent views of the comments within the newsroom itself. For instance, personal experiences, though they may be of high interest as comments on some stories, may be less useful for stories where expertise or cognitive authority is more important. Given research that shows how sourcing practices vary according to different types of stories, based on factors such as proximity (Berkowitz & Beach, 1993) and time demands

(Boczkowski, 2010), an exciting area for future work would be to consider how editorial criteria for comments may also vary across story types or topics. We know that there are some story topics, such as those related to controversial or sensitive social topics that provoke more uncivil dialogue (Coe et al., 2014) and where journalists are apt to want to switch off comments altogether (Diakopoulos & Naaman, 2011). Algorithmic solutions should be sensitive to overgeneralizing across contexts and instead seek to empower users to adapt algorithms for different situations and contingencies.

The readability metric that was applied here shows that whether comments are selected by editors or not (though keep in mind that all NYT comments are pre-moderated), they have a uniformly high reading level, with selected comments being even higher. This raises questions of the broader accessibility and "entrance requirement" to online discourse (Wahl-Jorgensen, 2002, p. 76). A recent post by the New York Times' Public Editor, Margaret Sullivan (Sullivan, 2014) quotes executive editor Dean Baquet as saying, "I think of The Times reader as very well-educated, worldly and likely affluent." The possibility of embedding the editorial criteria of readability into algorithms thus gives the newsroom the power to deeply integrate such top-down perceptions of audience into a generalizable and highly scalable and systematic way to "enforce" the appeal of content to a well-educated audience that can write well-formed, grammatical, and perhaps even eloquent comments. It is here that notions of algorithmic accountability and transparency (Diakopoulos, 2014) become particularly relevant since, as these criteria become conscious and articulated in computer code, so too must the news organization begin to grapple with how to be transparent and indeed apply these criteria ethically. Is it categorically better to select comments that have a high readability? When might this come into tension and conflict with other criteria like fairness or diversity?

Conclusions

In this paper the researcher has explored the manifestation of editorial criteria at play in the selection of comments as "NYT Picks" at the New York Times. The researcher first articulated a set of 12 factors identified in the literature as editorial criteria that have been employed by journalists for selecting user-contributed content in various contexts. A crowdsourcing experiment was then undertaken, which showed that for six of the criteria (Argument Quality, Criticality, Internal Coherence, Personal Experience, Readability, and Thoughtfulness) comments that were "NYT Picks" were rated significantly higher than comments that were non-"NYT Picks. Weaker evidence was found for a difference for the criterion of Emotionality, and no evidence was found for Entertaining as a criterion for selection. But while we find that NYT editors do appear to apply criteria that manifest along many of these dimensions, the results cannot categorically prove that Entertainment is not a criterion for selection under some circumstances. The study is limited to only the New York Times, and to the editorial criteria employed there. It may be that other news outlets would employ humor and entertainment as selection criteria. As such, future work should strive to repeat such a crowdsourcing experiment for other news outlets that also identify and highlight editorially selected comments.

The researcher has also articulated computational operationalizations of three criteria,

including Brevity, Readability, and Personal Experience. The results on Brevity show that journalists in the online space actually select for longer comments, rather than shorter comments as the literature suggested from studies of the print domain. The Readability and Personal Experience metrics show good correlations to the crowdsourced results for those same criteria lending validity to those operationalizations. These results thus suggest that automated technologies leveraging natural language processing might be further explored to computationally operationalize the other editorial criteria identified in this paper. Such developments in technology offer tremendous opportunity for empowering both end-users and journalists in finding new value in online comments, yet we must proceed with caution and consider algorithmic implementations that are adaptable to the myriad contexts encountered across the media.

References

Anderson, A. A., Brossard, D., Scheufele, D. A., Xenos, M. A., & Ladwig, P. (2014). The “Nasty Effect:” Online incivility and risk perceptions of emerging technologies. Journal of Computer-Mediated Communication, 19(3).

Artstein, R., & Poesio, M. (2008). Inter-coder agreement for computational linguistics. Computational Linguistics, 34(4), 555–596.

Bakhshi, S., Kanuparthy, P., & Shamma, D.A. (2015). Understanding online reviews: funny, cool or useful? In Proc. Computer Supported Cooperative Work (CSCW).

Barzilai-Nahon, K. (2008). Towards a theory of network gatekeeping: A framework for exploring information control. JASIST, 59(9), 1493–1512.

Berkowitz, D., & Beach W. D. (1993). News sources and news context: The effect of routine news, conflict, and proximity. Journalism Quarterly, 70, 4-12.

Bird, S., Loper, E., & Klein, E. (2009). Natural language processing with python. O’Reilly Media Inc.

Boczkowski, P. J. (2010). News at work: Imitation in an age of information abundance. Chicago, IL: University of Chicago Press.

Broussard, M. (2014). Artificial intelligence for investigative reporting: Using an expert system to enhance journalists’ ability to discover original public affairs stories. Digital Journalism. Advance online publication.

Canter, L. (2013). The misconception of online comment threads. Journalism Practice, 7(5), 604–619.

Carlson, M. (2014). The robotic reporter: Automated journalism and the redefinition of labor, compositional forms, and journalistic authority. Digital Journalism. Advance online publication.

Coe, K., Kenski, K., & Rains, S. a. (2014). Online and nncivil? Patterns and determinants of incivility in newspaper website comments. Journal of Communication, 64(4), 658–679

Diakopoulos, N., & Naaman, M. (2011). Toward quality discourse in online news comments. In Proc. Computer Supported Cooperative Work (CSCW).

Diakopoulos, N. (2014). Algorithmic accountability: Journalistic investigation of computational power structures. Digital Journalism. Advance online publication.

Diakopoulos, N. (2015). The editor’s eye: Curation and comment relevance on the New York Times. In Proc. Conference on Computer Supported Cooperative Work (CSCW).

Friedman, B., Kahn Jr., P. H., & Borning, A. (2006). Value sensitive design and information systems. In Human-computer interaction in management information systems (pp. 348–372).

Harrison, J. (2010). User-Generated content and gatekeeping at the BBC Hub. Journalism Studies, 11(2), 243–256.

Hermida, A., & Thurman, N. (2008). A clash of cultures: The integration of user-generated content within professional journalistic frameworks at British newspaper websites. Journalism Practice, 2(3), 343–356.

Hullman, J., Diakopoulos, N., Momeni, E., & Adar, E. (2015). Content, context, and critique: Commenting on a data visualization blog. In Proc. Computer Supported Cooperative Work (CSCW).

Jomini Stroud, N., Scacco, J. M., Muddiman, A., & Curry, A. L. (2014). Changing deliberative norms on news organizations' Facebook sites. Journal of Computer-Mediated Communication.

Kittur, A., Chi, E. H., & Suh, B. (2009). Crowdsourcing user studies with Mechanical Turk. In Proc. Conference on Human Factors in Computing Systems (CHI) (pp. 453–456).

Kovach, B., & Rosenstiel, T. (2007). The elements of journalism: What newspeople should know and the public should expect (2nd ed.). Three Rivers Press.

Lampe, C., & Resnick, P. (2004). Slash(dot) and burn: distributed moderation in a large online conversation space. In Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI).

Lewis, S. C. (2012). The tension between professional control and open participation. Information, Communication & Society, 15(6), 836–866.

Lewis, S. C., Zamith, R., & Hermida, A. (2013). Content analysis in an era of big data: A hybrid approach to computational and manual methods. Journal of Broadcasting & Electronic Media, 57(1), 34–52.

Manosevitch, E., & Walker, D. (2009). Reader comments to online opinion journalism: A space of public deliberation. In Proc. International Symposium on Online Journalism.

Manosevitch, E., Steinfeld, N., & Lev-On, A. (2014). Promoting online deliberation quality: cognitive cues matter. Information, Communication & Society, 17(10), 1–19.

Matt Shearer, Basile Simon, C. G. (2014). Datastringer: easy dataset monitoring for journalists. In Proceedings Symposium on Computation + Journalism.

McElroy, K. (2013). Where old (gatekeepers) meets new (media). Journalism Practice, 7(6), 755–771.

McLaughlin, G. H. (1969). SMOG grading - A new readability formula. Journal of Reading, 12(8), 639–646.

Meyer, H. K., & Carey, M. C. (2013). In moderation: Examining how journalists' attitudes toward online comments affect the creation of community. Journalism Practice, 8(2), 1–16.

Munson, S. A., Zhou, D. X., & Resnick, P. (2009). Sidelines: An algorithm for increasing diversity in news and opinion aggregators. In Proc. International Conference on Weblogs and Social Media (ICWSM).

Owseley Sood, S., Churchill, E. F., & Antin, J. (2012). Automatic identification of personal insults on social news sites. Journal of the American Society for Information Science and Technology

(JASIST), 63(2).

Porter, M. F. (1980). An Algorithm for Suffix Stripping. Program, 14(3), 130–137.

Reader, B. (2007). Air mail: NPR sees “community” in letters from listeners. Journal of Broadcasting & Electronic Media, 51(4), 651–669.

Reich, Z. (2011). User comments: The transformation of participatory space. In J. B. Singer, A. Hermida, D. Domingo, A. Heinonen, S. Paulussen, T. Quandt, … M. Vujnovic (Eds.), Participatory Journalism.

Riffe, D., Lacy, S., & Fico, F. (2005). Analyzing media messages: Using quantitative content analysis in research (2nd ed.). Lawrence Erlbaum Associates.

Santana, A. D. (2014). Virtuous or vitriolic: The effect of anonymity on civility in online newspaper reader comment boards. Journalism Practice, 8(1), 18–33.

Singer, J. B. (2010). Quality control: Perceived effects of user-generated content on newsroom norms, values and routines. Journalism Practice, 4(2), 37–41.

Sukumaran, A., & Vezich, S. (2011). Normative influences on thoughtful online participation. In Proc. Conference on Human Factors in Computing Systems (CHI).

Sullivan, M. (2014). Pricey doughnuts, pricier homes, priced-out readers. New York Times.

Swapna Gottipati, J. J. (2012). Finding thoughtful comments from social media. In Proc. COLING.

Tausczik, Y. R., & Pennebaker, and J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. Journal of Language and Social Psychology, 29(1), 24–54.

Usher, N. (2014). Making news at the New York Times. University of Michigan Press.

Wahl-Jorgensen, K. (2001). Letters to the editor as a forum for public deliberation: Modes of publicity and democratic debate. Critical Studies in Media Communication, 18(3).

Wahl-Jorgensen, K. (2002). Understanding the conditions for public discourse: four rules for selecting letters to the editor. Journalism Studies, 3(1), 69–81.

Young, M. L., & Hermida, A. (2014). From Mr. and Mrs. outlier to central tendencies: Computational journalism and crime reporting at the Los Angeles Times. Digital Journalism. Advance online publication.

Endnotes

1. http://www.nytimes.com/content/help/site/usercontent/usercontent.html

2. http://developer.nytimes.com/

3. https://github.com/mikedawson/textstatistics-python

4. http://www.liwc.net/

Appendix A – Crowdsourced Ratings Instrument

Instructions

Below you will see a comment recently published on the New York Times in response to a news article.

> •Read the comment carefully and thoroughly. Make sure that you understand what it means.
>
> •Provide ratings for the comment in the embedded questionnaire below. Please be honest, there are no “right answers”.

Comment

<comment text shown here>

Please provide 2-3 keywords that summarize the comment:

<text entry box here>

To what extent is this comment amusing, entertaining, or humorous?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent does this comment express a well-grounded and justifiable argument of high quality?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent is this comment well-articulated, clear, and grammatical?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent does this comment express emotions such as happiness, sadness, surprise, fear, disgust, or anger?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent does this comment express a personal experience, story, or perspective?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent is this comment thoughtful and substantive in its content?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent does this comment make sense on its own even without the rest of the comment thread or article?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

To what extent does this comment express a critical perspective?

<Radio button Likert scale 1-5 with 1 labeled “not at all” and 5 labeled “a lot”>

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Tap, scroll down, chat and more? Examining the influence of mobile applications and interpersonal discussions towards political participation

Joseph Jai-sung Yoo, Pei Zheng, Hyeri Jung, Victoria Y. Chen, Shuning Lu and Thomas J. Johnson

Due to the mobility and portability, mobile technology enables users to gather political information and discuss with others conveniently through applications. Scholars have examined the interplay of news media use and interpersonal discussion to predict political engagement, but few studies have focused on the role of mobile applications as news sources. Based on the Differential Gains and Communication Mediation Models, this study tested the influence of mobile applications on political participation. Results indicated that online discussions both mediated and moderated the relationship between mobile application use and political participation. Offline discussions showed a limited capacity as a mediator.

Introduction

Mobile communication is ubiquitous. Mobile technology can connect individuals virtually anytime, anywhere and mobile users can easily engage in several interpersonal discussions and information-searching activities. The mobility and portability of mobile devices allows users to use their mobile devices conveniently. Pew (2013) found that 44% of U.S. adults own a smartphone and 22% of U.S. adults also possess a tablet PC. Among them, 62% of smartphone and 64% of tablet owners are consuming news on their mobile devices. Pew (2014) suggested that 81% of cellphone owners used their phones to send or receive text messages and 60% used them for Internet access. Such descriptive results confirm that the main function of a mobile phone is interpersonal communication, followed by information searching.

The basic functions of mobile communication are social and instrumental dimensions. Shah, Kwak, and Holbert (2001) discovered that (1) information exchange about news and public affairs, (2) sociability with family and peers and (3) personal recreation are three main functions for mobile phone uses. Campbell and Kwak (2010a) argued that using mobile devices for information exchange and recreation functions significantly predicted civic engagement. On smartphones or tablet PCs, mobile communication

can be achieved by applications, designed to heighten the interactive experience of a touch screen (Johnson & Kaye, 2014). Reliance on information resources and online communication can significantly predict political engagement. While mobile (online) communication is not a face-to-face process, interpersonal communication is still a significant predictor of political participation (Vu, et al., 2013).

Scholars are still confirming the influence of media use and communication activities in predicting political participation. The Differential Gains Model (Scheufele, 2002; Scheufele & Nisbet, 2002) and the Communication Mediation Model (Cho, Shah, McLeod, McLeod, Scholl, & Gotlieb, 2009; Shah, Cho, Eveland & Kwak, 2005) are two main models to explain the influence of media use and communication toward political engagement. The Differential Gains Model argues that political outcomes of media consumption are contingent upon the media's interaction with interpersonal communication both off and online. More specifically, individuals who frequently discuss political issues in conjunction with consuming media are more likely to participate in both offline and online political activities. The Communication Mediation Model posits that mass communication strongly influences political activities but such a relationship is indirect. According to the Communication Mediation Model, communication is a mediating variable between reliance on mass communication and political behaviors.

While some scholars have examined the effectiveness of the two models based on traditional and Internet news sources, few studies have focused on the role of mobile applications on political engagement. This study examines the influence of mobile application use on political participation, from the perspective of the Differential Gains Model and the Communication Mediation Model.

Literature Review

Mobile Communication and Politics

As one of the fastest diffusing media, mobile phone technology has been noted for its growing influence on social and cultural aspects of people's daily life (e.g., Campbell & Kwak, 2011; Fortunati, 2002; Katz, 2006; Ling, 2008). Political use of mobile phone technology has also been widely witnessed in recent events throughout the world, such as SARS in China (Pomfret, 2003) and the Arab Spring revolution (Wagner, 2011). This booming phenomenon implies that mobile phones have evolved beyond simple chatting and calling into tools for political activities and mobilization.

Some scholars have pointed out that the affordability of mobile phone technology lends itself to be a promising component of democracy, allowing for widening the public sphere and strengthening civil society via the creation of new networks and the dissemination of information (Rheingold, 2002). Basically, Campbell and Kwak (2011) argued engagement with a different number of network ties contributed to social trust and the desire to contribute for mutual benefits. Those different networks share views and interests, participating in the political process and ultimately making a contribution to democratic society. Among many distinctive aspects of mobile communication, the low

cost, easiness and portability lend itself to reach numerous people, even those who are often politically apathetic (Hermanns, 2008) and enables people to engage in civic life anytime and anywhere (Wei & Lo, 2006). Also, such features of mobile applications allow users to have more chances to be involved in a discussion with networks consisted of both strong and weak ties. Furthermore, mobile technology also transforms people from passive receivers into active players in the way that people are triggered to react towards messages received from someone in their network (Green & Gerber, 2004).

However, some are concerned about the dark side of mobile communication. Compared with other media, mobile phone technology is a characteristically personal and privatized one; people use mobile phones primarily for connecting with social contacts (Campbell & Park, 2008). Therefore, by strengthening one's core social network and bringing together like-minded individuals, the use of mobile phones may result in social insularity and political detachment (Habuchi, 2005). Also noteworthy is that the negative link between recreational use of media and engagement in civic life observed by scholars (Shah, Kwak, & Holbert, 2001; Sotirovic & McLeod, 2001) tends to offer shaky evidence that mobile phone technology will boost civic activity.

The evolving debate on the hopes or fears of mobile phone technology fosters empirical inquiry on the linkage between different mobile usage patterns and civic or political engagement. Early studies addressed the use of typical functions of mobile phones and found that text messaging, compared with voice calling, is more likely to be associated with membership in a community and political organizations (Ling, et al., 2003). Other research revealed that both informational and recreational use of mobile phones are positive predictors of civic and political participation, while relational use is not found to be a strong predictor (Campbell & Kwak, 2010b; Kwak, et al., 2011).

It is worth noting that most studies cited above examined mobile phone use through texting, calling and mobile Internet browsing. With the penetration of the smartphone, recent report shows that there has been a sharp increase in mobile application use among the public in the previous five years (Fielder, 2014). This notable trend paves new ways to examine the link between mobile phone use and political participation. Thus, this study looks closely at the emerging pattern of mobile application use for political news and information and its impact on political participation from the following theoretical approaches.

Differential Gain, Mobile News Use and Political Participation

The Differential Gains Model aims to explain the variations in the relationship between news consumption and participation behaviors (Scheufele, 2002). According to Scheufele (2002), the impact of media content on citizens' understanding of politics and ultimately on participatory behavior might be contingent on discussing politics with others. In other words, interpersonal discussion moderates the potentially informational influence of mass media on its audiences. Citizens' understanding of politics depends on an interactive effect between mass and interpersonal communication. Reasons behind the interaction effect are two-fold: first of all, interpersonal discussion helps citizens to

elaborate on what they consume in mass media and assist them in reaching a decision about how they might participate (Lemert, 1981). Second, engaging in interpersonal discussion mobilizes news resources by exposing individuals to more diverse, rational and objective perspectives of politics that they may not encounter by reading news themselves. Discussing with others helps people to be aware of politics (Brundidge, Garrett, Rojas, & Gil de Zúñiga, 2014), thus, mobilized and well-informed citizens are a key antecedent of political participation.

The essence of differential gains is the relation between information and participation (Scheufele, 2002). Information is essential. The fundamental assumption is that more informative individuals, who obtain information from either news media or interpersonal discussion, are more likely to participate in politics. With the development of media technologies, the Internet, and more recently mobile apps, have supplanted traditional mass media. Print and broadcast news still have barriers for less educated or less knowledgeable individuals, while digital media is believed to be more accessible to everyone, given it's cheaper (or even free), faster and the content is more straightforward than traditional media. Mobile apps are believed to provide mobilizing information (Lemert, 1981) that enable citizens to participate meaningfully in politics on a day-to-day basis. Therefore, mobile phones and apps help spread news to a larger and more diverse population, laying a more solid foundation for citizen participation.

Interpersonal discussions among citizens have been treated as the "soul of democracy" in research on media, interpersonal communication, and democratic citizenship (Brundidage et al., 2014). Initially, the Differential Gains Model was limited to examining the interaction between traditional news media reliance and face-to-face communication (Scheufele, 2000, 2002); however, the emerging media technologies have kept updating the model with the latest media platforms and communication patterns. Studies have recognized that the Internet serves as a discursive space for users to express opinions and interact with each other (Mitra & Watts, 2002). While the effect of online discussion on political participation is complex (Brundidge, 2010), studies in general agree that online discussion could stimulate political participation and civic engagement (Shah, et al., 2005) with the Internet's capacity of turning disparate groups or communities into an "electronic commonnation." (Scheufele, 2002, p.49). Specifically, chatting online (Hardy & Scheufele, 2005), emailing articles to friends, participating in online forums (Kim & Johnson, 2006), using blogs (Kim, Johnson & Kaye, 2013), and commenting on political blogs replace or supplement face-to-face discussion to influence participatory behaviors (Brundidge, et al., 2014; Gil de Zúñiga et al., 2009).

Based on discussions about the influence of mobile phones explained by the Differential Gain Model, this study advanced two hypotheses:

H1: The interaction between mobile application use and online communication is positively related to H1a) online and H1b) offline participation.

H2: The interaction between mobile application use and face-to-face communication is positively related to H2a) online and H2b) offline participation.

Communication Mediation Model

With the advent of the two-step flow model (Katz & Lazarsfeld, 1955), the idea that interpersonal discussion mediates the relationship between news consumption and individual engagement became axiomatic. Based on this idea of the Communication Mediation Model (McLeod et al., 2002; Sotirovic & McLeod, 2001), scholars have examined the complementary relationships between mass media and interpersonal discussion. One of the implied premises of the model asserts that although the influence of mass media on political participatory behavior is strong, it is often mediated by an individual's discussion about politics with others.

There are two explanations for the positive mediating effect of interpersonal discussion on the relation between news consumption and political participation. First, consuming news information offers rich topics to elicit political conversations among people (Delli Carpini, 2000), drawing attention to important issues, enriching political knowledge, emphasizing opportunities for political activities, and eventually igniting participatory engagement (McLeod, Scheufele, & Moy, 1999). Second, scholars acknowledge that by reinforcing interpersonal discussion as a mediating role, it can facilitate the effect of news media consumption on civic participation (Cho et al., 2009; Lee, 2009). News consumption and interpersonal discussion are not competing but complementary factors that both have the ability to produce political engagement (Chaffee & Frank, 1996).

Communication scholars acknowledge that interpersonal discussion is a critical component of a wide range of media effects (Kim, Wyatt, & Katz, 1999). Like the Differential Gains Model, individuals who are engaged in interpersonal discussion are able to use complex concepts, make deep logical connections among them, and create consistent and reasoned argumentations (Cappella, Price, & Nir, 2002). Furthermore, online political communications mediate some of the effects of political participation (Cho et al., 2009; Shah et al., 2007).

Many scholars have tried to advance the Communication Mediation Model by identifying multitudinous features rooted in media and interpersonal discussion that may yield distinct outcomes (Eveland & Hively, 2009; Kwak et al., 2005). Not only traditional news media such as television and newspapers, but also online media are sources of political information, and foster political discussion and participation (Shah et al., 2005). With the advent of the Internet and the development of communication technologies, mobile devices such as smartphones and tablets have become sources for the public to consume political information. Although previous works have extended the scope of the Communication Mediation Model by incorporating various media channels and interpersonal discussion, there is limited discussion on how the model might vary depending on a newer form of media technology: the mobile apps in which people use both to seek out information as well as discuss politics. Based on the discussions about Communication Mediation Model, this study established two hypotheses.

H3: Online communication mediates the relationship between mobile application use and a) online and b) offline political participation.

H4: Face-to-face communication mediates the relationship between mobile application use and a) online and b) offline political participation.

Method

Data Collection

To answer the research questions empirically, an online survey was conducted from one week before to one week after the 2012 presidential election. The total sample size was 1,267.

This study used Amazon.com's Mechanical Turk (MTurk) to recruit respondents. MTurk is a crowdsourcing website that provides easy access to large and diverse respondents (Mason & Suri, 2012). Respondents from MTurk have diverse backgrounds in terms of age, ethnicity, and socioeconomic status. Previous studies showed the consistency in behaviors between users from MTurk and offline users. That is, MTurk users and offline users have similar behavior patterns (Berinsky, Huber, & Lenz, 2012; Mason & Suri, 2012; Messing & Westwood, 2012; Rand, 2012; Riordan & Kreuz, 2010). Although respondents from online panel is not representative, it is widely used in survey and experiment research (Vu, et al., 2013), suggesting that Mturk is acceptable in research. The respondents of this study were restricted to U.S. voters.

Independent Variables

Reliance on mobile applications. Respondents were asked how much they rely on smartphone/tablet apps for political news and information. Smartphone/tablet reliance was measured on a 5-point scale (1=never rely on, 5=heavily rely on; M = 1.97, SD = 1.22).

Political discussion variables. Online discussion and face-to-face discussion were measured in the survey. For online discussion, respondents were asked the level of interaction (sending comments, sending links, and reading) when they access different online sources, including political blogs, social network sites and Twitter on a 5-point scale (1=never interact; 5=very high interaction. Blog: M = 2.46, SD = 1.76, SNS: M = 2.95, SD = 1.61, Twitter: M = 2.69, SD = 1.89, Cronbach's α = .72). Face-to-face discussion was measured by asking respondents how much they rely on face-to-face discussion with others for political news and information, using a 5-point Likert scale (1= never; 5= always. M = 3.24, SD = .94).

Interaction variables. Online discussion and face-to-face discussion with reliance on news apps were used to create interaction terms. To avoid multi-collinearity, the news app reliance variable and discussion variables were transformed into z-scores. Two interaction variables were created: news app reliance with online discussion, and news app reliance with face-to-face discussion.

Dependent Variables

Two dependent variables, online political participation and offline political participation were examined separately in this study. Online political participation was created by combining six questions, which asked respondents to mark their level of activity on each political activity (1=not involved at all, 10=involved all of the time). The six items are 1) Contacted via the Internet by a national, state or local government official about an issue, (2) Contributed money via the Internet to a political candidate or a party or any political organization or cause, (3) Attended online a political meeting in support or against a particular candidate, party, or issue, (4) Signed or distributed an online petition, (5) Tried to persuade someone online (i.e. email, Twitter, Facebook, Skype) to vote for or against a political issue, cause or candidate, and (6) Informed someone else using an online source (i.e. web, email, Twitter, SNS), about a political event as it was happening (Cronbach's α = .79, M = 2.49, SD = 2.55).

Offline political participation was created by combining six 10-point items, which asked respondents to mark their level of activity for each political activity (1=not involved at all, 10=involved all of the time). The six items are (1) Contacted by telephone, mail or in person by a national, state or local government official about an issue, (2) Contributed money by mailing a check or calling in a credit card number to a political candidate or a party or any political organization or cause, (3) Attended in person a political meeting in support or against a particular candidate, party or issue, (4) Signed or distributed a printed petition, (5) Tried to persuade someone by telephone to vote for or against a political issue, cause, or candidate, (6) Informed someone else by telephone about a political event as it was happening (Cronbach's α = .83, M = 2.83, SD = 2.76). The minimally acceptable reliability of Cronbach's α is .7(Peterson, 1994)

Controlled Variables

Demographics. Gender, age, race, education and the level of incomes were measured. Overall, 51.7% of the respondents were male and 48.3% of the respondents were female. Respondents' ages ranged between 18 and 80 (M=33.89, Median = 31). While 78% of the respondents were Caucasian/White; 7.8% were African American/Black; 6.7% were Asian/Pacific Islander; 4.4% were Hispanic/Spanish/ Latino. Race was recoded as White (78%) and non-White (22%). Education was measured on a six-point scale: *less than high school* (1.3%), *high school graduate* (11.4%), some college (38.2%), *four-year college degree* (34.3%), *master's degree* (11.5%), and *terminal degree* (i.e., Ph.D., M.D., J.D., Ed.D.) (3%). The education median was "some college." Income was measured by an open-ended question on estimated annual income for 2012 (*M* =$47,577 *Median* = $32,000).

Political predisposition. Three political variables were examined: political interest, political ideology and party ties. Political interest was created by combining two questions. Respondents were asked to rate their political interest in general and in the 2012 presidential election on a 10-point scale from 1=not at all interested to 10=very interested. Reliability tests indicated a strong internal consistency between the two

questions (Cronbach's α= .88). The minimally acceptable reliability of Cronbach's α is .7(Peterson, 1994). Political ideology was measured on a 5-point scale from 1=very liberal to 5=very conservative (M = 2.63, SD = 1.07). Party ties were measured on a 10-point scale, from 1=no political party ties to 10=very strong political party ties (M = 5.8, SD = 2.79).

Data Analysis

In order to test the Differential Gains Models (H1 and H2), this study conducted hierarchical regression analysis using SPSS. Demographics were entered in the first block, and three political predisposition variables in the second block as controlled variables. In the third block, the reliance on mobile application use was entered and the fourth block included online and face-to-face discussion. Interactions of mobile app use with the two forms of discussion were entered in the fifth block with the two interactions measured separately. For H3 and H4, path analyses were conducted on AMOS. Demographic information and political predispositions were controlled. The exogenous variable is reliance on news apps, and the mediation variables are two forms of interpersonal discussion. The exogenous variables are the two forms of political participation.

Results

Hypothesis 1 and 2 asked about the interaction effects of mobile application use and online and face-to-face communication in predicting online and offline political participation. The results showed that the interaction of reliance on news app and online discussion was significantly related with online political participation (ß = .087, p<.01) and offline political participation (ß = .129, p<.001). It suggested a strong tendency of getting involved in online and offline political participation among those who rely on mobile applications and discuss political issues online. In other words, when using mobile apps for news, people who discuss politics online will be more likely to participate politically both online and offline than those who are less involved in online political discussion. However, the interaction effects between reliance on mobile apps and face-to-face discussion did not predict both online and offline political participation. Thus, while Hypothesis 1 is supported, Hypothesis 2 is rejected. Besides, the Differential Gains Models showed that the main effects of mobile application use (ß = .081, p<.01) and online discussions (ß = .457, p<.001) were significant in predicting online political participation. Also, in predicting offline participation, the main effects of mobile application use (ß = .083, p<.01) and online (ß = .384, p<.001) and offline (ß = .096, p<.001) discussions were statistically significant. The relationship in Figures (1 and 2) indicates that there is a positive relationship between mobile app use for news and political participation online and offline, yet online discussion speeds up the whole process.

Table 1. Influence of the mobile phone reliance on political participation
*p < .05, **p < .01, ***p < .001, standardized ß

	Online Participation			Offline Participation		
Variables	Without interactions	With interaction (online discussion)	With interaction (offline discussion)	Without interactions	With interaction (online discussion)	With interaction (offline discussion)
Block1						
Age	.057*	.049	.057*	.076**	.063*	076**
Gender	-.036	-.032	-.036	-.034	-.029	-.034
Race	.069**	.068**	.069**	.110***	.106***	.110***
Income	-.001	.003	-.001	.005	.012	.005
Education	-.025	-.027	-.025	-.032	-.034	-.032
ΔR^2	.010	.010	.010	.015	.015	.015
Block 2						
Party tie	.118***	.115***	.118***	.165***	.159***	.165***
Political interests	.114***	.124***	.114***	.024	.039	.024
Political ideology	-.061*	-.063*	-.061*	.023	.021	.023
ΔR^2	.128	.128	.128	.087	.087	.087
Block 3						
Mobile app use	.081**	.060*	.081**	.083**	.049	.083**
ΔR^2	.062	.062	.062	.057	.057	.057
Block 4						
Online discussion	.457***	.444***	.457***	.384***	.366***	.384***
Offline discussion	.043	.045	.043	.096***	.100***	.096***
ΔR^2	.162	.162	.162	.124	.124	.124
Block 5						
Interaction effect		.087**	.001		.129***	.000
ΔR^2		.007	.000		.015	.000
Total ΔR^2	.362	.369	.362	.283	.298	.283
N	1267	1267	1267	1267	1267	1267

Figure 1. The Differential Gain Model: Interaction between mobile application use and online discussion on online participation

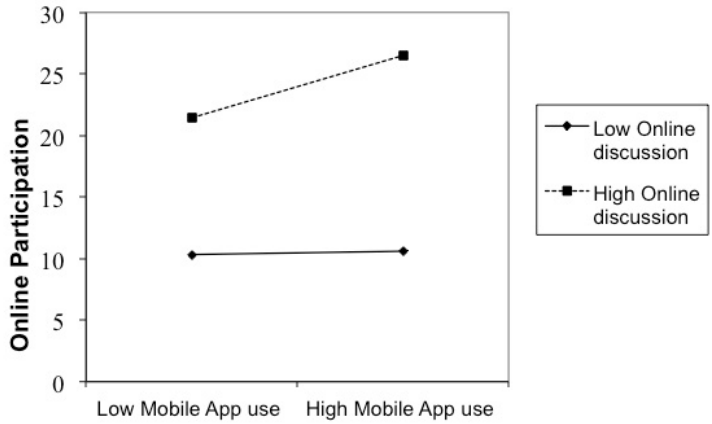
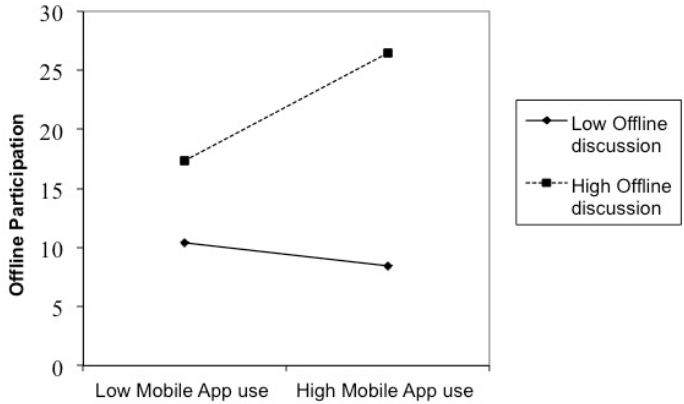
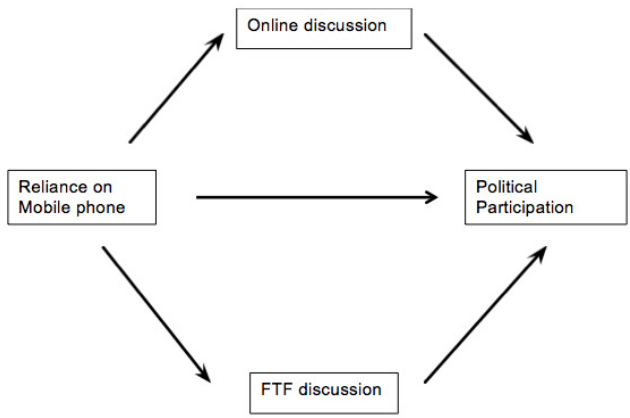


Figure 2. The Differential Gain Model: Interaction between mobile application use and online discussion on offline participation



Hypothesis 3 and 4 examined the mediation effects of mobile application use and two forms of discussion in predicting online and offline political participations. To examine Hypothesis 3 and 4, this study conducted two path analyses. First, full (saturated) models were calculated with all exogenous, control and endogenous variables. After trimming out insignificant paths on the full models, actual (parsimonious) models were created.

Figure 3. Communication Mediation Model (Full model)



To examine the fit between the original data and the three actual models, this study compared the performance of those models with fit measures, including the ratio of the normed chi-squared statistics to the degrees of freedom for the model (CMIN/df), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), and the Root Mean Squared Error of Approximation (RMSEA). [1]The results, in Table 2, suggested that the online participation model reflected the original data marginally (NFI=.943, CFI=.945, RMSEA= .117) but offline participation doesn't (NFI=.878, CFI=.883, RMSEA=117) .

Table 2. Parsimonious model fit values for Communication mediation model

Model	CMIN	DF	CMIN/DF	NFI	CFI	RMSEA
Online participation	73.433	4	18.358***	.943	.945	.117
Offline participation	121.256	8	15,157***	.878	.883	.106

Before conducting the path analysis, this study measured the direct effect of reliance on news apps on online and offline political participation. There were significant direct relationships between reliance on application use and online participation (ß= .266, p<.01) and offline participation (ß = .250, p<.01).

In predicting online participation, online discussion was found to be a mediator, while the influence of face-to-face discussion on the relationship between mobile application use and online participation was not statistically significant. The mediator, online discussion, decreased the standardized beta of the direct path from reliance on smartphones toward online participation into .082 (compared with the ß = .266 for the direct path), and this direct effect remains significant. This supported the partially mediated effect of online discussion between the relationship between reliance on news apps (ß = .429, p<.001) and online political participation (ß = .462, p<.001), controlling age, race and party ties.

Both online and face-to-face discussions were significant mediators of the relationship between mobile application use and offline participation. The direct effect of mobile application use toward offline political participation decreased (from ß = .250 to .078, p<.01) after adding online and face-to-face discussions into the model as mediators. Online discussion was a significant mediator between mobile application use (ß = .427, p<.001) and offline participation (ß = .399, p<.001). Also, face-to-face discussion mediated the relationship between mobile application use (ß = .224, p<.001) and offline participation (ß = .104, p<.001). To conclude, online discussion partially mediated the relationship between mobile app use and online participation, the relationship between mobile app use and offline participation, while face-to-face discussion partially mediated the relationship between mobile app use and offline participation. Thus, while Hypothesis 3 was completely supported, Hypothesis 4 was partially supported.

Figure 4. Online Political Participation: Partial mediation model

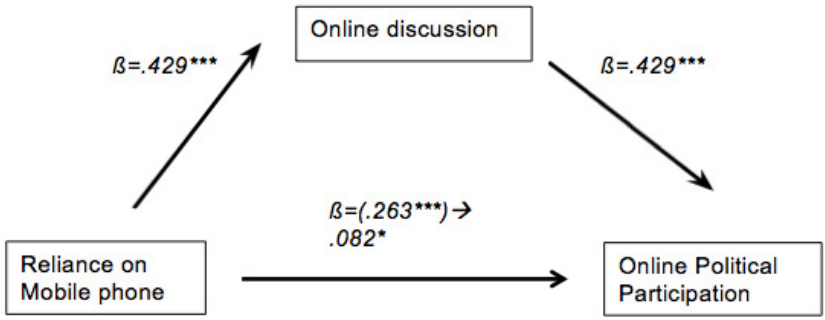
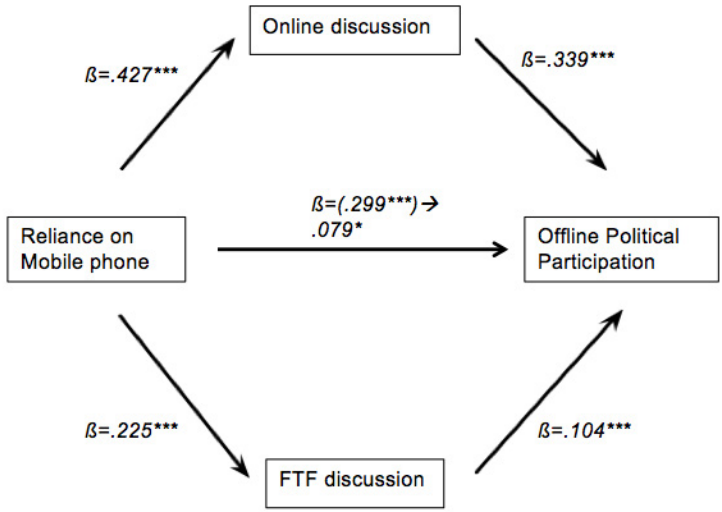


Figure 5. Offline Political Participation: Partial mediation model



Discussion

This study examined the influence of mobile applications as well as interpersonal discussions toward political engagement. Theoretical arguments based on Differential Gains (Scheufele, 2002; Scheufele & Nisbet, 2002) and the Communication Mediation Model (Cho, Shah, McLeod, McLeod, Scholl, & Gotlieb, 2009; Shah, Cho, Eveland &

Kwak, 2005) were employed to explain the influence of mobile applications on political activities. As expected, the relationship between reliance on mobile applications and political participation was both mediated and moderated by interpersonal discussion. Specifically, reliance on mobile applications and online discussion showed significant moderation and mediation effects in predicting both online and offline political participation. Such synergy effects can be attributed to the portability, connectivity, and personalization of mobile devices. Quick and convenient access to online information through mobile devices enables users to be engaged in any kind of political activities (Wei & Lo, 2006). They might easily contact officials, donate money, attend online meetings, sign or distribute petitions, and ask others to vote or refer to online sources through their mobile devices. Such active online participation also extends to the real world, where mobile devices have been credited with mobilizing citizens on a range of events from SARS to the Arab Spring (Pomfret, 2003; Wagner, 2011).

Online discussion had a stronger mediating and moderating effect on political participation than face-to-face. In the Differential Gains Model, online discussion, but not face-to-face discussion interacted with news app reliance to influence both offline and online participation. Similarly, for the Communication Mediation Model, online discussion mediated the relationship between online and offline participation while face-to-face communication only served as a significant mediator of online participation. The differences between results for face-to-face and online discussion may reflect the technological affordances of mobile technology. While smartphones in particular allow for both interpersonal discussion and information search, it is primarily used for online discussion, particularly sending texts back and forth to friends, answering and creating e-mails as well as using it to call individuals (Pew, 2014). Similarly, while recent studies have found mixed support for differential gains effects with online and social media (Brundidge et al., 2014; Kim, et al., 2010; Vu et al., 2013), this study showed more evidence of a differential gains effect, at least among online discussion because of the prominent role interpersonal discussion plays in mobile technology.

Also, online discussion usually has a larger network size in general than offline ones. While online discussion conducted more through weak ties, offline discussion usually engages people who know each other better. Usually, individuals from a smaller network size are connected through strong ties. To some extent, weak tie connections have a larger capacity for discussion, compared to smaller offline discussion based on strong ties, to predict our dependent variable: participation.

Some researchers have argued that the Internet may have a greater effect on online than offline political participation. For instance, Gil de Zuniga and colleagues (2010) argued “online participation may open a different pathway to participation, as some of the costs associated with this online participation may not be so high (p. 38).” Although costs associated with participatory behaviors are higher and additional efforts are in offline participation, this study did not find noticeable differences between the effects of mobile app use and interpersonal communication on offline and political participation. This is in line with studies that have looked at social mobilization that argue that because mobile news apps are portable and provide always-on connectivity and location-based services

(Weiss, 2013; Wolf & Schnauber, 2014) they are ideal for mobilizing individuals in online activities such as elections or protests (Yamamoto, Kushin & Dalisay, 2013).

Conclusion

This study cleared differentiated online communication and face-to-face discussions during the analysis. Shah et al. (2005) argued that the Internet could complement face-to-face political talk. Our study found this argument was somewhat true: while online discussion could mediate and moderate the influence of mobile application use towards both forms of participation, face-to-face discussions did not mingle with using mobile apps to predict online participation. Like Hong et al. (2013), arguing that online communication has become much more important in leading people to be engaged in political activities, this study confirmed the overarching role of online discussions in combining with the media to increase political activities.

This study has several limitations. First of all, this study was a cross-sectional analysis, which means that the study cannot examine cause and following effect in analyzing the influence of mobile application use and interpersonal discussions on political participation. It is uncertain whether mobile application usage would lead to political discussion with others, or whether the causal direction can be reversed. Even though second-screen activities on mobile devices are common these days, which means that information gathering activities and discussion happens at the same time, there might be clear causal relationships. Also, this survey was conducted during the 2012 presidential election period, when more politically active discussants were prevalent. A multi-wave panel study can complement such shortcomings, by measuring time-relational and constant effects of mobile application usages. Moreover, this study was not a random sample, but gathered information though the popular crowdsourcing site Amazon Mechanical Turk. Studies have found that on most demographic measures, MTurk samples are representative of the U.S. population, and that it provides more representative results than other types of convenience samples (Berinsky, Huber, & Lenz, 2012; Mason & Suri; 2012, Messing & Westwood, 2012; Rand, 2012; Riordan & Kreuz, 2010). However, caution still must be taken in generalizing the results to online populations.

Beyond several limitations, this study confirmed the influence of mobile application use and derived political discussion among networks to the political participation. Campbell and Kwak (2011) originally examined the influence of mobile phone use, an alternative form of interpersonal communication, along with network sizes in predicting political participation. While mobile phone use could cause political discussions with the networks with family, relatives and close friends having strong ties, mobile applications provide a discussion platform with more heterogeneous people with weak ties. This study showed that with the emergence and widespread use of mobile applications for political discussions, mobile applications could mobilize weak ties, supported by more significantly strong effects of online discussions on online participation. This study could be differentiated from former studies based on the limited capacity of mobile phones. Thus, news media companies should take into consideration that mobile news

applications can elicit more engagement in their published news. It would also be better for news media outlets to develop more sophisticated news applications that allow application users to join continuous discussions within their networks. Such simultaneous activities combining news consumption and discussions could result in robust discourses and engender more active political participation.

Further analysis should incorporate ideas about the nature of political discussions. Specifically, political discussions can provide a chance for gaining access to cross-cutting information or restricting access to similar ideas, which might lead to the heterogeneity of discussions or insularity of like-minded groups, ultimately influencing the level of participation. The examination of the nature of political discussions related to mobile communication usage could enrich the academic focus on mobile communication, which has been shown to be a strong influence on political activities.

References

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351-368.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage Focus Editions*, 154, 136-161

Brundidge, J. (2010). Encountering ''difference'' in the contemporary public sphere: The contribution of the Internet to the heterogeneity of political discussion networks. *Journal of Communication*, 60 (4), 680-700.

Brundidge, J., Garrett, R. K., Rojas, H., & Gil de Zúñiga, H. (2014). Political participation and ideological news online: "Differential gains" and "differential loses" in a presidential election cycle. *Mass Communication and Society*, 17(4), 464-486.

Campbell, S. W., & Kwak, N. (2010a). Mobile communication and civic life: Linking patterns of use to civic and political engagement. *Journal of Communication*, 60(3), 536-555.

Campbell, S. W., & Kwak, N. (2010b). Mobile communication and social capital: An analysis of geographically differentiated usage patterns. *New Media & Society*, 12(3), 435-451.

Campbell, S. W., & Kwak, N. (2011). Mobile communication and civil society: Linking patterns and places of use to engagement with others in public. *Human Communication Research*, 37(2), 207-222.

Campbell, S. W., & Park, Y. J. (2008). Social implications of mobile telephony: The rise of personal communication society. *Sociology Compass*, 2(2), 371-387.

Cappella, J., Price, V., & Nir, L. (2002). Argument repertoire as a reliable and valid measure of opinion quality: Electronic dialogue during campaign 2000. *Political Communication*, 19(1), 73-93.

Chaffee, S. H., & Frank, S. (1996). How Americans get political information: Print versus broadcast news. *The annals of the American Academy of Political and Social Science*, 546, 48-58.

Cho, J., Shah, D., McLeod, J., McLeod, D., Scholl, R., & Gotlieb, M. (2009). Campaigns, reflection and deliberation: Advancing an O-S-R-O-R model of communication effect. *Communication Theory*, 19(1), 66-88.

Delli Carpini, M. (2000). Gen.com: Youth, civic engagement, and the new information environment. *Political Communication*, 17(4), 341-349.

Eveland, W., Hayes, A., Shah, D., & Kwak, N. (2005). Understanding the relationship between communication and political knowledge: A model comparison approach using panel data. *Political Communication*, 22(4), 423-446.

Eveland, W., & Hively, M. (2009). Political discussion frequency, network size, and "heterogeneity" of discussion as predictors of political knowledge and participation. *Journal of Communication*, 59(2), 205-224.

Fielder, R. (2014). Majority of smartphone owners are now routinely using news apps: 2014 RJI Mobile Media Research Report 3. Retrieved on November 23, 2014 from http://www.rjionline.org/research/rji-mobile-media-project/2014-q1-research-report-3

Fortunati, L. (2002). The mobile phone: Towards new categories and social relations. *Information, Communication & Society*, 5(4), 513-528.

Gil de Zúñiga, H., Puig-i-Abril, E., & Rojas, H. (2009). Weblogs, traditional sources online and political participation: An assessment of how the Internet is changing the political environment. *New Media & Society*, 11(4), 553-574.

Gil de Zúñiga, H, Veenstra, A, Vraga, E., & Shah, D. (2010). Digital democracy: Reimagining pathways to political participation. *Journal of Information Technology & Politics*, 7(1), 36 -51.

Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, 17(3), 319-336.

Green, D.P. and A.S. Gerber (2004), *Get Out the Vote! How to Increase Voter Turnout*, Washington, DC: Brookings Institution Press.

Habuchi, I. (2005). Accelerating reflexivity. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, portable, pedestrian: Mobile phones in Japanese life* (pp. 165–182). Cambridge, MA: MIT Press.

Hardy, B. W., & Scheufele, D. A. (2005). Examining differential gains of Internet use: Comparing the moderating role of talk and online interactions. *Journal of Communication*, 55, 71-84.

Hermanns, H. (2008). Mobile democracy: Mobile phones as democratic tools. *Politics*, 28(2), 74-82.

Johnson, T. J. & Kaye, B. (2014). An appetite for political information? Characteristics and media habits of mobile news app users. Submitted to the annual meeting of the International Communication Association.

Katz, E. (2006). *Magic in the Air*. New Brunswick, NJ: Transaction Publishers.

Katz, E., & Lazarsfeld, P. (1955). *Personal influence: The part played by people in the flow of mass communications*. Glencoe, IL: The Free Press.

Kaye, B. K & Johnson, T. J. (2011). Net gain? Selective exposure and selective avoidance on online political information. In F. Comunello (ed.), *Networked sociability and individualism: Technology for personal and professional relationships*, (pp. 218-237). Hershey, PA: IGI Global.

Kim, D., Johnson, T. J., & Kaye, B. K. (2010). Something ventured, something gained. *Web Journal of Mass Communication Research*, 24 (September 2010). Retrieved from http://www.scripps.ohiou.edu/wjmcr/vol24/

Kim, J, Wyatt, R., & Katz, E. (1999). News, talk, opinion, participation: The part played by conversation in deliberative democracy. *Political Communication*, 16(4), 361-385.

Kwak, N., Campbell, S. W., Choi, J., & Bae, S. Y. (2011). Mobile communication and public affairs

engagement in Korea: An examination of non-linear relationships between mobile phone use and engagement across age groups. *Asian Journal of Communication*, 21(5), 485-503.

Kwak, N., Williams, A., Wang, X., & Lee, H. (2005). Talking politics and engaging politics: An examination of the interactive relationships between structural features of political talk and discussion engagement. *Communication Research*, 32(1), 87-111.

Lee, F. (2009). The impact of political discussion in a democratizing society: The moderating role of disagreement and support for democracy. *Communication Research*, 36(3), 379-399.

Lemert, J. B. (1981). *Does mass communication change public opinion after all? A new approach to effects analysis*. Chicago, IL: Nelson Hall.

Ling, R. (2008). New tech, new ties: How mobile communication is reshaping social cohesion. Cambridge, MA: MIT Press.

Ling, R., Yttri, B., Anderson, B., & DiDuca, D. (2003). Mobile communication and social capital in Europe. In K. Nyiri (Ed.), *Mobile democracy: Essays on society, self, and politics*. Vienna: Passagen Verlag.

Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior research methods*, 44(1), 1-23.

McLeod, J. M., Kosicki, G. M., & McLeod, D. M. (2002). Resurveying the boundaries of political communication effects. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 215–267). Mahwah, NJ: Lawrence Elbaum Associates, Inc.

McLeod, J. M., Scheufele, D. A., & Moy, P. (1999). Community, communication,and participation: The role of mass media and interpersonal discussion in local political participation. *Political Communication*, 16(3), 315–336.

Messing, S., & Westwood, S. J. (2012). Selective exposure in the age of social media: Endorsements trump partisan source affiliation when selecting news online. *Communication Research*, DOI: 0093650212466406.

Mitra, A., & Watts, E. (2002). Theorizing cyberspace: The idea of voice applied to the Internet discourse. *New Media & Society*, 4, 479-498.

Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of consumer research*, 381-391.

Pew Research Center for the People and the Press (2013). "12 trends shaping digital news" Retrieved from http://www.pewresearch.org/fact-tank/2013/10/16/12-trends-shaping-digital-news/ http://www.pewresearch.org/fact-tank/2013/10/16/12-trends-shaping-digital-news/

Pew Research Center for the People and the Press (2014). "Cell Phone Activities 2013" Retrieved from http://www.pewinternet.org/2013/09/19/cell-phone-activities-2013/http://www.pewinternet.org/2013/09/19/cell-phone-activities-2013/

Pomfret, J. (2003). Outbreak gave China's Hu an opening, *Washington Post*, 13 May 2003.

Price, V., Cappella, J., & Nir, L. (2002). Does disagreement contribute to more deliberative opinion? *Political Communication*, 19(1), 95-112.

Rand, D. G. (2012). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of theoretical biology,* 299,172-179.

Rheingold, H. (2002). *Smart Mobs: The Next Social Revolution*, Cambridge, MA: Perseus.

Riordan, M. A., & Kreuz, R. J. (2010). Emotion encoding and interpretation in computer-mediated communication: Reasons for use. *Computers in human behavior*, 26(6), 1667-1673.

Scheufele, D. A. (2000). Talk or conversation? Dimensions of interpersonal discussion and their implications for participatory democracy. *Journalism and Mass Communication Quarterly*, 77(4), 727-743.

Scheufele, D. A. (2002). Examining differential gains from mass media and their implication for participatory behavior. *Communication Research*, 29(1), 46-65.

Scheufele, D. A., & Nisbet, M. (2002). Being a citizen online: New opportunities and dead ends. *Harvard International Journal of Press/Politics*, 7(3), 55-75.

Shah, D. V., Cho, J., Eveland, W. P., & Kwak, N. (2005). Information and expression in a digital age. Modeling internet effects on civic participation. *Communication Research*, 32(5), 531-565.

Shah, D. V., Cho, J., Nah, S., Gotlieb, M., Hwang, H., Lee, N, & McLeod, D. (2007). Campaign ads, online messaging, and participation: Extending the communication mediation model. *Journal of Communication*, 57(4), 676- 703.

Shah, D. V., Kwak, N., & Holbert, L. (2001). “Connecting” and” disconnecting” with civic life: Patterns of Internet use and the production of social capital. *Political Communication*, 18(2), 141-162.

Sotirovic, M., & McLeod, J. M. (2001). Values, communication behavior, and political participation. *Political Communication*, 18(3), 273-300.

Vu, H., Yoo, J., Stephens, M., Mourao, R. R., Baresh, B. & Johnson, T. J. (2013) Communication’s next top model: Comparing the Differential Gains and Communication Mediation Models as predictors of political participation and knowledge. Association for Education in Journalism and Mass Communication Conference 2013. Political Communication Interest Group. Washington, DC. August 8-11, 2013. Top Paper Award.

Wagner, B. (2011). The Arab Spring “I Have Understood You”: The Co-evolution of expression and control on the internet, television and mobile phones during the Jasmine Revolution in Tunisia. *International Journal of Communication*, 5,(8), 1295-1302

Wei, R., & Lo, V. H. (2006). Staying connected while on the move: Cell phone use and social connectedness. *New Media & Society*, 8(1), 53-72.

Weiss, A. S. (2013). Exploring news apps and location-based services on the smartphone. *Journalism & Mass Communication Quarterly*, 90(3), 435–456.

Wolf, C., & Schnauber, A. (2014). News consumption in the mobile era: The role of mobile devices and traditional journalism's content with the user's information repertoire. *Digital Journalism*. DOI:10.1080/21670811.2014.942497 (Advance online publication).

Wyatt, R. O., Katz, E., & Kim, J. (2000). Bridging the spheres: Political and personal conversation in public and private spaces. *Journal of Communication*, 50(1), 71-92.

Yamamoto, M., Kushin, M. J., & Dalisay, F. (2013). Social media and mobiles as political mobilization forces for young adults: Examining the moderating role of online political expression in political participation. *New Media & Society*, DOI:1461444813518390 (Advance online publication).

Zhang, W., Johnson, T. J., Seltzer, T., & Bichard, S. (2010). The revolution will be networked: The influence of social network sites on political attitudes and behavior. *Social Science Computer Review*, 28(1), 75-92.

Endnotes

1. The Normed Fit Index (NFI) is the proportion of improvement of the overall fit of the model relative to the baseline model. The Comparative Fit Index (CFI) is an updated criterion of NFI, taking the sample size into account. Values close to 1 generally are a good fit. The RMSEA explains the error of approximation in the population and inquires "how well the model, with unknown but optimally chosen parameter values, would fit the population covariance matrix" (Browne & Cudeck, 1993). Guidelines to interpret the Root Mean Squared Error of Approximation (RMSEA) are: RMSEA ≤ .05 = good fit, .05 <RMSEA < .08 = reasonable fit and RMSEA ≥ .08 = poor fit.

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Journalists, Gatekeeping, and Social Interaction on Twitter: Differences by Beat and Media Type for Newspaper and Online News

Frank Michael Russell

This study examines how journalists interact with citizens, news sources, and other journalists on Twitter. The study compares practices of journalists who cover different beats (public affairs, sports, business/technology) and who work for different types of media (prestige newspapers, metropolitan newspapers, entrepreneurial websites). Sports journalists were more active on Twitter and interacted more with members of the public than did public affairs or business/technology journalists. Metro newspaper journalists were less active. However, various kinds of journalists were more alike than different in how they use Twitter, which suggests their practices might be influenced by a common journalistic culture.

In a 30-day period in spring 2014, 27 journalists posted on Twitter on various topics: the controversy over the name of the professional football team in Washington, D.C., a chemical spill in West Virginia, Facebook, Starbucks, the stock market, the NBA Final, and a race horse named California Chrome. They exchanged congratulations to colleagues for new jobs, and they thanked readers for compliments on stories. Indeed, Twitter has become part of many journalists' daily routine. It also has become a frequent research topic for media scholars, including some who have observed that journalists use it in ways consistent with gatekeeping and intermedia agenda-setting theories (e.g., Hermida, 2013; Lasorsa, Lewis, & Holton, 2012; Parmelee, 2013).

The purpose of this content analysis is to extend that conversation by exploring how different kinds of journalists use Twitter to interact with other journalists, news sources, and the public. Specifically, this study compares and contrasts Twitter practices of journalists who specialize in public affairs, sports, and business/technology news. It also compares and contrasts practices of journalists from prestige newspapers (e.g., The New York Times), metropolitan newspapers (e.g., The Denver Post), and entrepreneurial news websites (sites founded with venture capital backing, e.g., Business Insider).

Twitter as a Platform for News

Twitter has emerged as an important platform for disseminating news (Hermida, 2013). Journalists and news sources use Twitter to share information with the public. As a social media platform, Twitter has unique characteristics based on its founding in 2006 as a means of sharing short text messages on cellphones (Hermida, 2013). The text of Twitter posts is limited to 140 characters, but users can attach multimedia or share links to Web content (Bruns & Burgess, 2012). They can forward tweets from other users to their followers in the form of "retweets" or "RTs." Users can send retweets without modification, or they can add their own commentary. Users also can reply to posts or flag other users by mentioning their usernames preceded by the "@" symbol (Bruns & Burgess, 2012; Lasora, Lewis, & Holton, 2012). A majority of U.S. journalists use social media to look for breaking news, monitor other news media, search for story ideas, interact with audiences, and find more information or sources for stories (Willnat & Weaver, 2014). Twitter has become a more routine reporting tool than other social media in part because journalists can maintain a "disinterested stance" (Reed, 2013, p. 568) when they follow news sources. By contrast, Facebook requires a reciprocal "friends" relationship, which can violate journalists' "personal and professional boundaries" (Reed, 2013, pg. 568).

About half of Twitter users view the service as a news source, and they are less likely to turn to print newspapers, television, or radio for news than users of other social media (Holcomb, Gottfried, & Mitchell, 2013). Twitter is a more prominent news source for younger users and those who have more education and higher incomes (Holcomb et al., 2013). Twitter allows citizens to interact with journalists to be "involved in the flow, framing and interpretation of news" (Hermida, 2013, p. 304). However, interaction with the public and newsmakers challenges journalists' traditional role as gatekeepers who determine which information gets passed along to audiences (Hermida, 2013; Parmelee, 2013).

Previous research has suggested journalists interact more with each other on Twitter than with news sources or the public. For example, a content analysis of tweets by journalists for four large legacy newspapers and four online news sites found journalists were more likely to interact during the 2013 U.S. federal government shutdown with other journalists than with political sources or citizens (Russell, Hendricks, Choi, & Stephens, 2015). Furthermore, journalists and news media use Twitter as a promotional tool to direct readers to articles posted on their websites (Armstrong & Gao, 2013; Lasorsa et al., 2012; Russell et al., 2015). Twitter helps journalists do their jobs, but adds to their responsibilities (Parmelee, 2013). Journalists believe pressure to provide news quickly on Twitter comes at the expense of accuracy (Kian & Murray, 2014; Willnat & Weaver, 2014).

Sportswriters feel pressure to break news and be active on Twitter (Kian & Murray, 2014). Sportswriters believe it is necessary to follow team owners, players, and other journalists (Kian & Murray, 2014; Reed, 2013). At the same time, sportswriters appreciate that Twitter allows them to interact directly with readers and that their posts can reach an

audience beyond a specific region (Kian & Murray, 2014).

As for business journalists, Lariscy, Avery, Sweetser, and Howes (2009) surveyed 200 journalists, including reporters for influential financial publications, to find they were not fully adopting social media as a reporting tool. However, the authors noted Twitter's potential for public relations practitioners to interact with reporters. Given that Twitter is increasingly part of journalists' work routines, it is possible that business journalists have become more active on this platform since the Lariscy et al. (2009) analysis. For clarity, this study refers to "business/technology" as a news topic because financial journalists prominently cover technology companies such as Apple, Google, Twitter, and Facebook (Pew Research Center's Project for Excellence in Journalism, 2010). Most newspapers in this study had business reporters dedicated to technology coverage, and technology news sites are among entrepreneurial media that have received venture capital funding.

Theoretical Framework

This study considers journalists' Twitter use from gatekeeping and intermedia agenda-setting perspectives. Retweets serve a gatekeeping function because they reflect journalists' decisions to forward information to followers (Lasorsa et al., 2012). Gatekeeping theory suggests external and organizational pressures influence journalists' news decisions (Shoemaker & Vos, 2009). In particular, journalists are influenced by news sources such as public relations practitioners (who provide information subsidies that reduce the cost of reporting news), other journalists, and the social and economic environment in which they operate (Cameron, Sallot, & Curtin, 1997; Carroll & McCombs, 2003; Shoemaker & Vos, 2009). Journalists have mixed feelings about information subsidies. Many journalists are skeptical of commercially motivated messages, but financial journalists are willing to accept such messages when they come from established businesses with favorable reputations (Carroll & McCombs, 2003).

Intermedia agenda-setting theory suggests other media heavily influence journalists' news decisions. For example, health journalists reported that other journalists had a stronger effect on their story choices than public relations sources (Len-Ríos et al., 2009). Four newspapers, The New York Times, The Washington Post, The Wall Street Journal, and the Los Angeles Times, have been identified as especially influential on other news media (Danielian & Reese, 1989; Golan, 2006; Heim, 2011; Meraz, 2009; Reese & Danielian, 1989). This previous research suggests it is possible that journalists from these prestige newspapers and their counterparts from metropolitan daily newspapers face different kinds of organizational and external pressures, which would affect their Twitter use. For that reason, this study examines how prestige newspaper journalists and metro newspaper journalists use this platform. Indeed, a content analysis of more than 22,000 tweets by 430 journalists found differences in the nature of posts by elite and non-elite media (Lasorsa et al., 2012). Members of elite media comprising national newspapers, broadcast networks, and cable channels "were less inclined to share opinions, engage readers, and so forth" (Lasorsa et al., 2012, p. 31) on Twitter. The authors posited that journalists who work for local media would need "to be more active and interesting on Twitter" (Lasorsa et al., 2012, p. 31) than journalists who could

draw followers based on their elite media status.

Much research involving intermedia agenda-setting occurred before the Internet and social media emerged as news platforms. Newspapers formerly dominated their markets, but much of the news audience now prefers digital sources (Pavlik, 2013). This study specifically considers online news sites that have received funding from venture capital firms because entrepreneurship scholars have noted the role of these financial intermediaries in technological innovation (Chemmanur & Fulghieri, 2014; Shane & Cable, 2002). Entrepreneurial news websites could have their own organizational and external pressures that influence how their journalists use Twitter.

Although prestige and metro newspapers and online news sites operate in different environments, they share an important similarity. In capitalistic economies, news media must attract an audience that pays for content or draws advertiser attention (Napoli, 2001; Shoemaker & Reese, 1996). Journalists have adopted Twitter as a means for reaching that audience, but the platform has its own "sociotechnical dynamics" (Hermida, 2013, p. 306) that influence news routines and practices.

Taken as a whole, this interplay of external and organizational pressures on journalists' news decisions suggests different kinds of journalists might use Twitter in different ways. Specifically, the literature suggests two research questions:

RQ1. How do journalists with different beats or coverage areas (public affairs, sports, business/technology) interact with other journalists, news sources, and the public on Twitter? (Interactions are defined as retweets and @mentions.)

RQ2. How do journalists who work for different types of media (prestige newspapers, metropolitan newspapers, entrepreneurial news sites) interact with other journalists, news sources, and the public on Twitter?

Method

Many previous studies of journalists' Twitter use focused on early adopters or prolific users, but recent studies have suggested the platform has become a normal part of journalists' work routines (Hermida, 2013; Lasorsa et al., 2012). For that reason, this study examines tweets from journalists who are both active and less frequent Twitter users. A combination of random and purposive sampling ensured that tweets from different kinds of journalists were represented. However, this sampling strategy required accepting that any conclusions reached would not be fully generalizable to all journalists.

The sample was compiled in three steps starting with a purposive sample of news organizations. Four prestige newspapers identified in previous research (the Los Angeles Times, The New York Times, The Wall Street Journal, and The Washington Post) were selected. Next, 10 U.S. metropolitan daily newspapers were chosen by identifying the largest based on circulation reported to the Alliance for Audited Media. Newspapers published in the same metropolitan area as a prestige newspaper or a larger metro

newspaper were excluded to ensure a geographically diverse sample. Finally, 10 entrepreneurial news websites were chosen by conducting Google and Lexis-Nexis searches for news coverage of online media companies that received venture capital investments. Sites were chosen only from among the 1,000 most popular U.S. websites as ranked by Alexa.com.

Table 1.

Twitter Accounts in Sample

	Prestige Newspapers	Metro Newspapers	Entrepreneurial Sites
Public Affairs	@costareports *Washington Post*, @jennaportnoy *Washington Post*, @mattdpearce *Los Angeles Times*	@BenBotkin1 *Las Vegas Review Journal*, @chuckplunkett *Denver Post*, @MichaelMatza1 *Philadelphia Inquirer*	@BrettLoGiurato *Business Insider*, @dcbigjohn *BuzzFeed*, @RosieGray *BuzzFeed*
Sports	@AndrewDasNYT *New York Times*, @dcsportsbog *Washington Post*, @MikeWiseguy *Washington Post*	@JoeyThinCrust *Chicago Sun-Times*, @StribPrepsDavid *Minneapolis Star-Tribune*, @terrypluto *Cleveland Plain-Dealer*	@davidfucillo *SB Nation*, @MikePradaSBN *SB Nation*, @TravisSBN *SB Nation*
Business/ Technology	@benfritz *Wall Street Journal*, @mims *Wall Street Journal*, @NRiveraBrooksLA *Los Angeles Times*	@andyvuong *Denver Post*, @InqBrubaker *Philadelphia Inquirer*, @QuillenKim *Arizona Republic*	@alexia *TechCrunch*, @JoshConstine *TechCrunch*, @samfbiddle *Gawker*

Next, a stratified sample of Twitter accounts was selected. The researcher examined lists from the news organizations' main Twitter accounts to find journalists whose profile descriptions indicated they cover public affairs, sports, or business/technology news. From this list, the researcher randomly selected three each of nine types of journalists: prestige public affairs, prestige sports, prestige business/technology, metro public affairs, metro sports, metro business/technology, entrepreneurial public affairs, entrepreneurial sports, entrepreneurial business/technology (see Table 1). Journalists who did not post at least an average of once a day over a 30-day period from May 9 to June 7, 2014, were excluded. Finally, TwimeMachine was used to collect Twitter posts for each of the journalists from this period. From these posts (n = 15,230), a random sample of tweets

was selected. Some journalists posted multiple times daily. To make sure enough tweets by different types of journalists remained for analysis, the number of posts by any one journalist was limited to 5% (n = 45) of the sample. As tweets were removed from journalists more active on Twitter, tweets were randomly selected from other accounts until the sample (n = 900) was complete.

Coders

Two trained independent coders, both communication doctoral students, examined the tweets and classified the dependent variables based on a codebook developed by the researcher. Each coder examined 495 tweets, resulting in an overlap of 10% (n = 90) of the sample. The coders achieved sufficient agreement on the dependent variables reported in this study. Specific reliability statistics are reported along with the descriptions of the dependent variables. For the tweets examined by both coders, the researcher randomly selected between the coders' cases to compile the final sample.

Independent and Dependent Variables

This study has two independent variables: beat (public affairs, sports, business/technology) and type of news media (prestige newspaper, metropolitan newspaper, entrepreneurial news website). This study has five dependent variables that were categorized by the coders: Source of retweet was categorized as same news outlet, other news media, official information source, public, unclear, or no retweet. The coders achieved sufficient agreement (Krippendorff's $\alpha = .82$) based on the standard suggested by Krippendorff (2013) that an alpha of at least .8 indicates reliability and that an alpha of at least .667 may be used to reach tentative conclusions. Presence of addition to retweet was categorized as yes, no, or no retweet. The coders agreed on this variable ($\alpha = 1$). Source of first @mention was categorized as same news outlet, other news media, official information source, public, unclear, or no @mention. The coders achieved agreement on the high end of the range for reaching tentative conclusions ($\alpha = .78$). In categorizing @mentions, coders were asked to only consider text from the journalist and to ignore @mentions that were part of retweets. This allowed for separate consideration of @mentions that involved interactions intended by the journalist rather than indirect interactions such as those in retweeted text. Source of second @mention was categorized as same news outlet, other news media, official information source, public, unclear, or no second @mention ($\alpha = .85$). Source of third @mention was categorized as same news outlet, other news media, official information source, public, unclear, or no third @mention ($\alpha = 1$). Tweets with more than three @mentions were rare. Specifically, 1% (n = 10) had four or more @mentions. These additional @mentions were excluded because too few existed for meaningful statistical analysis. Based on the variables categorized by the coders, three additional dependent variables were created: presence of retweet (yes or no), presence of @mention (yes or no), and presence of retweet or @mention (yes or no).

Analysis

Chi-square goodness of fit tests were conducted to determine whether statistically significant differences occurred in the number of tweets based on each of the categories of the two independent variables (journalist's beat and type of news media). Chi-square tests of independence were used to compare the independent variables against each of the dependent variables (presence of retweet or @mention, presence of retweet, source of retweet, presence of addition to retweet, presence of @mention, source of first @ mention, source of second @mention, and source of third @mention).

Initial analyses of the source of second @mention variable and the initial comparison of source of retweet against type of media violated an assumption of chi-square tests because too many contingency table cells had an expected count of less than 5. For most of these comparisons, it was possible to conduct a chi-square test with no more than 20% of the cells containing an expected count of less than 5 by removing the "unclear" category. For consistency, the "unclear" category was removed for source of retweet, source of first @mention, and source of second @mention variables. The coders categorized about 1% (n = 7) of the tweets as "unclear" for the source of retweet variable, 2% (n = 21) for the source of first @mention variable, and less than 1% (n = 3) for the source of second @mention variable. Even after dropping the "unclear" category, it was not possible to meet chi-square test assumptions for the comparison of type of media and source of second @mention. However, it was possible to conduct this comparison by combining "official information source" and "public" categories of source of second @mention into a new "non-journalist" category. Finally, source of third @mention analyses also violated chi-square assumptions, and it was not possible to remove or combine categories in a relevant way. For that reason, this variable was dropped. About 3% (n = 26) of the tweets had a third @mention.

Results

Beat Differences

The first research question concerned how journalists with different beats interact with other journalists, news sources, and the public on Twitter. A one-sample chi-square goodness of fit test indicated that a statistically significant difference, $\chi 2(2, N = 900) = 16.51$, $p < .001$, existed among the proportions of tweets by sports journalists (39%, n = 354), public affairs journalists (32%, n = 290), and business/technology journalists (28%, n = 254).

Table 2.

Presence of Retweet or @Mention Compared by Beats

	% Yes	% No
Public Affairs (*n* = 290)	71 (ASR = 1.4)	29 (ASR = -1.4)
Sports (*n* = 354)	63 (ASR = -2.3*)	37 (ASR = 2.3*)
Business/Tech (*n* = 256)	70 (ASR = 1.0)	30 (ASR = -1.0)
Total (*n* = 900)	67	33

χ^2 (2, *N* = 900) = 5.30, *p* = .07, Cramer's *V* = .08, *significant adjusted standardized residuals

Presence of retweet or @mention. About two-thirds of the tweets contained either a retweet or at least one @mention. The difference in the proportion of Twitter posts with either a retweet or at least one @mention by public affairs, sports, and business/technology journalists approached significance (see Table 2). Adjusted standardized residuals (ASRs) showed sports journalists had a lower proportion of Twitter posts with a retweet or @mention than the sample as a whole.

Table 3.

Presence of Retweet Compared By Beats

	% Yes	% No
Public Affairs (*n* = 290)	31 (ASR = 4.7*)	69 (ASR = -4.7*)
Sports (*n* = 354)	16 (ASR = -3.3*)	84 (ASR = 3.3*)
Business/Tech (*n* = 256)	19 (ASR = -1.3)	81 (ASR = 1.3)
Total (*n* = 900)	22	78

χ^2 (2, *N* = 900) = 22.74, *p* < .001, Cramer's *V* = .16, *significant ASRs

Presence of retweet. More than 1 in 5 tweets in the sample contained a retweet. A significant difference existed in the proportion of Twitter posts with retweets by public affairs, sports, and business/technology journalists (see Table 3). ASRs showed a greater proportion of tweets by public affairs journalists and a lower proportion of tweets by sports journalists included a retweet.

Source of retweet. A significant difference existed in the sources of retweets among

journalists with different beats (see Table 4). A greater proportion of tweets from public affairs journalists included retweets from other news media, and a lower proportion did not include retweets. Sports journalists had a lower proportion of tweets with retweets from other news media, and a greater proportion of tweets that did not include retweets.

Table 4.

Source of Retweets Compared by Beats

	% Same news outlet	% Other news media	% Official information source	% Public	% No retweet
Public Affairs (*n* = 287)	9 (ASR = 1.7)	14 (ASR = 4.6*)	5 (ASR = 1.8)	2 (ASR = -.4)	70 (ASR = -4.7*)
Sports (*n* = 351)	6 (ASR = -.9)	5 (ASR = -3.0*)	2 (ASR = -1.8)	3 (ASR = .1)	85 (ASR = 3.3*)
Business/ Tech (*n* = 255)	6 (ASR = -.7)	6 (ASR = -1.4)	3 (ASR = .1)	3 (ASR = .4)	82 (ASR = 1.2)
Total (*n* = 893)	7	8	3	3	78

$\chi^2(8, N = 893) = 31.2$, $p < .001$, Cramer's $V = .13$, *significant ASRs

Table 5.

Presence of Addition to Retweets Compared by Beats

	% Yes	% No	% No RT
Public Affairs (*n* = 290)	4 (ASR = 1.6)	27 (ASR = 4.3*)	69 (ASR = -4.7*)
Sports (*n* = 354)	2 (ASR = -.5)	14 (ASR = -3.2*)	84 (ASR = 3.3*)
Business/Tech (*n* = 256)	2 (ASR = -1.2)	17 (ASR = -.9)	8 (ASR = 1.3)
Total (*n* = 900)	3	19	78

$\chi^2(4, N = 900) = 23.44$, $p < .001$, Cramer's $V = .11$, *significant ASRs

Addition to retweet. A significant difference in these categories of tweets existed among journalists with different beats (see Table 5). Public affairs journalists had a greater proportion of retweets without additional text, but mostly because they had a lower

proportion of tweets without RTs. Sports journalists had a lower proportion of retweets without additional text, but mostly because they had a greater proportion of tweets without RTs. No significant difference existed from the sample in the proportions of tweets with text added to a retweet by public affairs and sports journalists, nor in any of the categories by business/tech journalists.

Table 6.

Presence of @Mention Compared by Beats

	% Yes	% No
Public Affairs (*n* = 290)	40 (ASR = -2.5*)	60 (ASR = 2.5*)
Sports (*n* = 354)	47 (ASR = .5)	53 (ASR = -.5)
Business/Tech (*n* = 256)	51 (ASR = 2.0*)	49 (ASR = -2.0*)
Total (*n* = 900)	46	54

$\chi^2(2, N = 900) = 7.56$, $p = .02$, Cramer's $V = .09$, *significant ASRs

Presence of @mention. Slightly less than half of the tweets included at least one @ mention. A difference existed in the proportions of tweets with at least one @mention by journalists with varying beats (see Table 6). Public affairs journalists included a lower proportion of tweets with at least one @mention. Business/tech journalists had a greater proportion of such tweets. Although sports journalists had the largest number of tweets with @mentions, the proportion did not differ significantly from the sample.

Source of first @mention. A significant difference existed in the sources of first @ mentions among journalists based on beats (see Table 7). Public affairs journalists had greater proportions of tweets with a first @mention from their own news organizations and of tweets without @mentions. They had lower proportions of tweets with a first @ mention from other news media and from the public. Sports journalists had a lower proportion of tweets with a first @mention from their own news organizations and a greater proportion from the public. Business/tech journalists had a lower proportion of tweets with a first @mention from their own news organizations, greater proportions of tweets with a first @mention from other news media or official information sources, and a lower proportion of tweets without any @mentions.

Table 7.

Source of First @Mention Compared by Beats

	% Same news outlet	% Other news media	% Official information source	% Public	% No @Mention
Public Affairs (*n* = 286)	18 (ASR = 5.6*)	9 (ASR = -3.3*)	4 (ASR = -1.2)	8 (ASR = -3.8*)	61 (ASR = 2.3*)
Sports (*n* = 341)	7 (ASR = -2.0*)	14 (ASR = -.7)	4 (ASR = -.7)	20 (ASR = 3.1*)	55 (ASR = -.2)
Business/ Tech (*n* = 252)	4 (ASR = -3.6*)	23 (ASR = 4.1*)	7 (ASR = 2.1*)	16 (ASR = .7)	50 (ASR = -2.2*)
Total (*n* = 879)	10	15	5	15	56

$\chi^2(8, N = 879) = 67.03$, $p > .001$, Cramer's $V = .20$, *significant ASRs

Table 8.

Source of Second @Mention Compared by Beats

	% Same news outlet	% Other news media	% Official information source	% Public	% No Second @Mention
Public Affairs (*n* = 289)	10 (ASR = 4.3*)	3 (ASR = -.2)	** (ASR = -1.8)	1 (ASR = -1.3)	86 (ASR = -1.6)
Sports (*n* = 352)	2 (ASR = -3.7*)	2 (ASR = -1.7)	2 (ASR = 1.4)	3 (ASR = .3)	92 (ASR = 2.8*)
Business/ Tech (*n* = 256)	5 (ASR = -.4)	5 (ASR = 2.0*)	2 (ASR = .4)	3 (ASR = 1.0)	86 (ASR = -1.4)
Total (*n* = 897)	5	3	1	2	88

$\chi^2(8, N = 897) = 30.57$, $p < .001$, Cramer's $V = .13$, *significant ASRs, ** less than 1%

Source of second @mention. Second @mentions were rare in comparison to first @mentions; specifically, about 1 in 9 tweets included more than one @mention. A difference existed among journalists with different beats in the sources or lack of a second @mention (see Table 8). Public affairs journalists included a greater proportion of tweets with second @mentions from their own news organizations. Sports journalists included a lower proportion of such tweets. Business/tech journalists had a greater

proportion of tweets with second @mentions from other news media.

Taken together, the analyses showed differences in how public affairs, sports, and business/technology journalists used retweets and @mentions. Compared with tweets by the other journalists, a tweet by a public affairs journalist was more likely to include any retweet, a retweet of a post from other news media, or @mentions associated with the journalist's own news organization. A public affairs journalist's tweet was less likely to include an @mention, an @mention of other news media, or an @mention of the public. Sports journalists were most active on Twitter in terms of number of posts. Compared with other posts, a sports journalist's tweet was less likely to include either form of interaction (retweet or @mention), any retweet, a retweet from other news media, or @ mention of their own news organization. A sports journalist's tweet was more likely to include an @mention of a member of the public. Business/technology journalists were least active on Twitter. Compared with other posts, a business/technology journalist's tweet was more likely to include an @mention, @mention of other news media, or @ mention of an official information source. A business/technology journalist's tweet was less likely to include an @mention associated with the journalist's own news organization.

Media Type Differences

The second research question concerned how journalists who work for different types of media interact with other journalists, news sources and the public on Twitter. A one-sample chi-square goodness of fit test showed a significant difference, $\chi2(2, N = 900) = 108.45$, $p < .001$, existed in the proportion of tweets by journalists who work for entrepreneurial news sites (45%, n = 402), prestige newspapers (38%, n = 341), and metro newspapers (17%, n = 157).

Presence of retweet or @mention; presence of retweet; presence of @mention. No significant difference existed in the proportion of Twitter posts with either a retweet or at least one @mention by journalists who worked for prestige newspapers, metro newspapers, or entrepreneurial news sites, $\chi2(2, N = 900) = 3.19$, $p = .20$, Cramer's $V = .06$. Furthermore, no significant difference existed among journalists from the three media types in the proportions of tweets with RTs, $\chi2(2, N = 900) = 3.87$, $p = .15$, Cramer's $V = .07$, nor in the proportion of tweets with @mentions, $\chi2(2, N = 900) = .17$, $p = .92$, Cramer's $V = .01$.

Source of retweet. No significant difference existed among journalists from prestige newspapers, metro newspapers, and entrepreneurial news websites in the proportions of tweets with a retweet from the same news outlet, a retweet from other news media, a retweet from an official information source, a retweet from a member of the public, or no retweet, $\chi2(8, N = 893) = 12.97$, $p = .11$, Cramer's $V = .09$. However, a significant adjusted standardized residual (ASR = 2.6) showed journalists from prestige newspapers had a greater proportion of tweets with RTs of a post from other news media than in the sample as a whole.

Addition to retweet. No significant difference existed among journalists from the three media types in the proportions of Twitter posts with a retweet that included additional text by the journalist, that did not add anything to the retweeted post, or that did not include a retweet, $\chi 2(4, N = 900) = 5.34$, $p = .25$, Cramer's $V = .05$. However, a significant adjusted standardized residual (ASR = -2.0) showed metro newspaper journalists had a lower proportion of posts that included a retweet without text added by the journalist than in the sample as a whole.

Table 9.

Source of First @Mention Compared by Media Type

	% Same news outlet	% Other news media	% Official information source	% Public	% No @Mention
Prestige Papers (*n* = 327)	7 (ASR = -2.2*)	15 (ASR = .1)	6 (ASR = 1.1)	16 (ASR = .8)	56 (ASR = .2)
Metro Papers (*n* = 157)	22 (ASR = 6.0*)	8 (ASR = -2.9*)	3 (ASR = -1.4)	14 (ASR = -.4)	54 (ASR = -.6)
Entrepreneur-ial News Sites (*n* = 395)	7 (ASR = -2.5*)	17 (ASR = 2.5*)	5 (ASR = 0)	14 (ASR = -.4)	56 (ASR = .2)
Total (*n* = 879)	10	15	5	15	56

$\chi^2(8, N = 879) = 43.39$, $p < .001$, Cramer's $V = .16$, *significant ASRs

Source of first @mention. A significant relationship existed among journalists who worked for prestige newspapers, metro newspapers, or entrepreneurial news websites in the categories of this variable (see Table 9). Prestige newspaper journalists had a lower proportion of tweets with first @mentions of Twitter accounts associated with their own news outlets than in the sample as a whole. Journalists for entrepreneurial news sites also had a lower proportion of such tweets. By contrast, metro newspaper journalists had a greater proportion of tweets with first @mentions associated with their own newspapers. Metro newspaper journalists had a lower proportion of tweets with first @mentions associated with other news media than in the overall sample. However, journalists from entrepreneurial sites had a greater proportion of first @mentions associated with other news media.

Table 10.

Source of Second @Mention Compared by Media Type

	% Same news outlet	% Other news media	% Non-journalist	% No Second @Mention
Prestige Newspapers (*n* = 339)	3 (ASR = -2.0*)	3 (ASR = .5)	3 (ASR = -.9)	91 (ASR = 1.6)
Metro Newspapers (*n* = 157)	11 (ASR = 3.6*)	4 (ASR = .8)	4 (ASR = .1)	82 (ASR = -2.9*)
Entrepreneurial News Sites (*n* = 401)	5 (ASR = -.8)	2 (ASR = -1.1)	4 (ASR = .8)	89 (ASR = .6)
Total (*n* = 897)	5	3	4	88

$\chi^2(6, N = 897) = 15.68$, $p = .02$, Cramer's $V = .09$, *significant ASRs

Source of second @mention. "Official information source" and "public" categories were combined as "non-journalist" to meet chi-square test assumptions. A significant difference existed among the three media types in the categories of this variable (see Table 10). ASRs indicated prestige newspaper journalists had a lower proportion of posts with second @mentions associated with their own newspapers and metro newspaper journalists had a greater proportion of such posts than in the overall sample. Metro newspaper journalists had a lower proportion of posts that did not have at least two @ mentions than in the overall sample.

Taken together, fewer differences existed among news media types than among journalists' beats. Compared with other posts, a prestige newspaper journalist's tweet was less likely to include @mentions associated with the journalist's own newspaper. Metro newspaper journalists were least active on Twitter in terms of number of posts. Compared with other posts, metro newspaper journalists' tweets were more likely to include @mentions associated with the journalist's newspaper and less likely to include @mentions of other news media. A metro newspaper journalist's tweet was more likely to include more than one @mention. Journalists for entrepreneurial news websites were most active on Twitter. Compared with other tweets, a post by such a journalist was more likely to include an @mention of other news media and less likely to include an @ mention associated with the journalist's own news outlet.

Discussion

The study showed several differences in the uses of retweets and @mentions by public affairs, sports, and business/technology journalists. Public affairs journalists seemed especially careful in their use of Twitter, which is consistent with previous research

finding journalists value balance or moderation in reporting (Gans, 1979), which has extended to political journalists' use of Twitter (Parmelee, 2013). This result also is consistent with research finding journalists are careful not to direct readers to information viewed as lacking credibility (Coddington, 2014). A public affairs journalist's post was more likely to include a retweet, suggesting these journalists perceive their role as passing on information to followers. By contrast, public affairs journalists' posts were less likely to include @mentions, particularly those referring to other news media or members of the public. However, such a post was more likely to include an @mention associated with the same news organization.

Sports editors, writers, and producers were more active on Twitter than public affairs or business/technology journalists, which is consistent with other studies of social media adoption by sport journalists (Kian & Murray, 2014; Reed, 2013). A sports journalist's tweet was more likely to include an @mention referring to a member of the public, echoing previous research that found sportswriters value Twitter for its potential for direct reader connections (Kian & Murray, 2014). However, a sports journalist's tweet was less likely to include interaction in the form of retweets, including those from other news media, perhaps reflecting the competitive pressure of this media platform.

Business journalists were infrequent Twitter users in a previous study (Lariscy et al., 2009), and the business/technology journalists in the present study were less active on Twitter than public affairs and sports journalists. A business/technology journalist's post was more likely to include an @mention from an official information source, which was consistent with research (Carroll & McCombs, 2003) that financial journalists are willing to accept information subsidies from established businesses with good reputations.

Prestige Newspapers, Metro Newspapers, and Entrepreneurial Websites

Compared with differences by beat, this study revealed fewer differences among journalists who work for prestige newspapers, metro newspapers, and entrepreneurial websites in how they use retweets and @mentions on Twitter. However, metro newspaper journalists were more guarded in their Twitter use. They tended to tweet less frequently, and their posts were more likely to include @mentions from their own newspapers. This finding was contrary to the Lasorsa et al. (2012) suggestion that local journalists would need to be more lively on Twitter than elite journalists to gain an audience. Instead, metro newspaper journalists seemed more restrained. Such an approach might not help them gain audience attention, but it is consistent with other research. Digital competitors have especially challenged metro newspapers (Pavlik, 2013), leading to smaller staffs with less time to do more work, and some newspaper journalists consider Twitter a time-consuming distraction (Parmelee, 2013).

Similarities Among Journalists

Although statistical tests revealed differences in how various types of journalists use retweets and @mentions on Twitter, effect sizes were relatively small. This suggests journalists are more similar than different in their Twitter use, a conclusion consistent with

previous research that journalists share a culture and professional values that influence work routines (Gans, 1979; Reese & Ballinger, 2001). For example, journalists typically have upper-middle-class, college-educated backgrounds. Many were initially exposed to this culture in journalism schools (Gans, 1979; Willnat & Weaver, 2014). They share values including accuracy, fairness, credibility, public service, immediacy, and autonomy (Deuze, 2005; Gans, 1979; Hayes, Singer, & Ceppos, 2007; Kovach & Rosenstiel, 2007). Future research should consider further how culture and values influence journalists' Twitter use.

Limitations and Suggestions for Future Research

As with similar research, this study has its limitations. Although this study offers insights into how journalists use retweets and @mentions, it does not consider more complex issues such as how Twitter use reflects journalists' roles or responsibilities. Initially, coders attempted to determine whether tweets in this study were personal or reflected a journalistic role such as neutral/disseminator, participant/interpretive, participant/adversarial, or participant/mobilizer (Johnstone, Slawski, & Bowman, 1972). However, coders did not achieve sufficient agreement. This occurred because many tweets occur within conversations between Twitter users, and it is not always possible to examine a single tweet in context. Furthermore, Twitter users can delete their posts, which also limits the ability to analyze tweets in context. Other methods could be useful for exploring this question. Specifically, textual analysis of tweets or interviews with journalists might help explain how journalistic roles are reflected in tweets.

It also was a potential limitation that this study only concerned three beats and three media types. It could be worthwhile to explore how journalists with different beats (e.g., arts, crime, or general assignment) or who work for other types of media (e.g., broadcasters, magazines, or smaller newspapers) use Twitter.

Conclusion

This study provided evidence of differences in how journalists use the retweet and @ mention functions of Twitter depending on whether they cover public affairs, sports, or business/technology news, and whether they work for prestige newspapers, metro newspapers, or entrepreneurial news websites. However, the variations had relatively small effect sizes. This suggests journalists are mostly similar in how they use Twitter, potentially reflecting a common culture and professional values. Findings about how journalists interacted with other news media extend research demonstrating intermedia agenda-setting influences on how news media use Twitter. Findings relating to differences in journalists' use of retweets have implications for gatekeeping theory.

The conclusions also apply to journalistic practice in that different kinds of journalists could learn from each other in how they use Twitter. Indeed, scholars have noted the potential of Twitter and other social media to encourage meaningful dialogue between journalists and citizens (Gillmor, 2010; Mayer, 2011; Pavlik, 2013). Lewis, Holton, and Coddington (2014) have extended the idea of citizen participation in news construction

with a new concept, “reciprocal journalism,” arguing that social media and other engagement tools should be used for exchanges benefiting both journalists and citizens. This dialogue won’t occur if journalists aren’t interacting with information sources and other citizens. Interaction with news sources could improve journalists’ use of Twitter as a reporting tool, and interaction with citizens could build a larger, more engaged news audience by strengthening connections between journalists and the public.

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References

Armstrong, C. L., & Gao, F. (2010). Now tweet this: How news organizations use Twitter. *Electronic News*, 4(4), 218-235.

Bruns, A., & Burgess, J. (2012). Researching news discussion on Twitter: New methodologies. *Journalism Studies*, 13(5-6), 801-814.

Cameron, G. T., Sallot, L. M., & Curtin, P. A. (1997). Public relations and the production of news: A critical review and theoretical framework. *Communication Yearbook*, 20, 111-156.

Carroll, C. E., & McCombs, M. (2003). Agenda-setting effects of business news on the public's images and opinions about major corporations. *Corporate Reputation Review*, 6(1), 36-46.

Chemmanur, T. J., & Fulghieri, P. (2014). Entrepreneurial finance and innovation: An introduction and agenda for future research. *Review of Financial Studies*, 27(1), 1-19.

Coddington, M. (2014). Normalizing the hyperlink: How bloggers, professional journalists, and institutions shape linking values. *Digital Journalism*, 2(2), 140-155.

Danielian, L. H., & Reese, S. D. (1989). A closer look at intermedia influences on agenda setting: The cocaine issue of 1996. In P. J. Shoemaker (Ed.), *Communication campaigns about drugs: Government, media, and the public* (pp. 47-66). Hillsdale, NJ: Lawrence Earlbaum Associates.

Deuze, M. (2005). What is journalism? Professional identity and ideology of journalists reconsidered. *Journalism*, 6(4), 442-464.

Gans, H.J. (1979). Deciding what's news: *A study of CBS Evening News, NBC Nightly News, Newsweek, and Time*. New York: Random House.

Gillmor, D. (2010). *Mediactive*. Retrieved from http://mediactive.com/wp-content/uploads/2010/12/mediactive_gillmor.pdf

Golan, G. (2006). Inter-media agenda setting and global news coverage: Assessing the influence of The New York Times on three network television evening news programs. *Journalism Studies*, 7(2), 323-333.

Hayes, A. S., Singer, J. B., & Ceppos, J. (2007). Shifting roles, enduring values: The credible journalist in a digital age. *Journal of Mass Media Ethics, 22(4)*, 262-279.

Heim, K. (2013). Framing the 2008 Iowa Democratic caucuses: Political blogs and second-level intermedia agenda setting. *Journalism & Mass Communication Quarterly, 90*(3), 500-519.
Hermida, A. (2013). #JOURNALISM: Reconfiguring journalism research about Twitter, one tweet at a time. *Digital Journalism*, 1(3), 295-313.

Holcomb, J., Gottfried, J., & Mitchell, A. (2013). *News use across social media platforms. Pew Research Journalism Project*. Retrieved from http://www.journalism.org/2013/11/14/news-use-across-social-media-platforms/

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

Kian, E. M., & Murray, R. (2014). Curmudgeons but yet adapters: Impact of Web 2.0 and Twitter on newspaper sports journalists' jobs, responsibilities, and routines. *#ISOJ Journal, 4*(1), 61-67.

Kovach, B., & Rosenstiel, T. (2007). *The elements of journalism: What newspeople should know and what the public should expect* (First revised ed.). New York, NY: Random House.

Krippendorff, K. (2013). *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage Publications.

Lariscy, R. W., Avery, E. J., Sweetser, K. D., & Howes, P. (2009). An examination of the role of online social media in journalists' source mix. *Public Relations Review*, 35(3), 314-316.

Lasorsa, D. L., Lewis, S. C., & Holton, A. E. (2012). Normalizing Twitter: Journalism practice in an emerging communication space. *Journalism Studies*, 13(1), 19-36.

Len-Ríos, M. E., Hinnant, A., Park, S. A., Cameron, G. T., Frisby, C. M., & Lee, Y. (2009). Health news agenda building: Journalists' perceptions of the role of public relations. *Journalism & Mass Communication Quarterly,* 86(2), 315-331.

Lewis, S. C., Holton, A. E., & Coddington, M. (2014). Reciprocal journalism: A concept of mutual exchange between journalists and audiences. *Journalism Practice*, 8(2), 229-241.

Mayer, J. (2011). *Community engagement: A practical conversation for newsrooms*. Columbia, MO: Reynolds Journalism Institute. Retrieved from http://www.rjionline.org/sites/default/files/engagement-guide_8.pdf

Meraz, S. (2009). Is there an elite hold? Traditional media to social media agenda setting influence in blog networks. *Journal of Computer-Mediated Communication*, 14(3), 682-707.

Napoli, P. M. (2001). The audience product and the new media environment: Implications for the economics of media industries. *International Journal on Media Management*, 3(2), 66-73.
Parmelee, J. H. (2013). Political journalists and Twitter: Influences on norms and practices. *Journal of Media Practice*, 14(4), 291-305.

Pavlik, J. V. (2013). Innovation and the future of journalism. *Digital Journalism*, 1(2), 181-193.

Pew Research Center's Project for Excellence in Journalism (2010). When technology makes headlines: The media's double vision about the digital age. Retrieved from http://www.journalism.org/analysis_report/when_technology_makes_headlines

Reed, S. (2013). American sports writers' social media use and its influence on professionalism. *Journalism Practice*, 7(5), 555-571.

Reese, S. D., & Ballinger, J. (2001). The roots of a sociology of news: Remembering Mr. Gates and social control in the newsroom. Journalism & Mass Communication Quarterly, 78(4), 641-658.

Reese, S. D., & Danielian, L. H. (1989). Intermedia influence and the drug issue: Converging on cocaine. In P. J. Shoemaker (Ed.), *Communication campaigns about drugs: Government, media, and the public* (pp. 29-46). Hillsdale, NJ: Lawrence Earlbaum Associates.

Russell, F. M., Hendricks, M. A., Choi, H., & Stephens, E. C. (2015). Who sets the news agenda on Twitter? Journalists' posts during the 2013 US government shutdown. Digital Journalism. Advance

online publication. doi:10.1080/21670811.2014.995918

Shane, S., & Cable, D. (2002). Network ties, reputation, and the financing of new ventures. *Management Science,* 48(3), 364-381.

Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the message: Theories of influence on mass media content* (2nd ed.). White Plains, NY: Longman Publishers.

Shoemaker, P. J., & Vos, T. (2009). *Gatekeeping theory*. New York: Routledge.

Willnat, L., & Weaver, D. H. (2014). *The American journalist in a digital age: A first look*. Paper presented at the International Communication Association Annual Conference, Seattle, WA, May 2014.

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Live Tweeting a Presidential Primary Debate: Comparing the Content of Twitter Posts and News Coverage

Kyle Heim

Twitter was a "second screen" during the 2012 U.S. presidential debates as debate viewers shared highlights and observations. This study compared the live Twitter stream during the December 10, 2011, Iowa Republican primary debate with news reports to determine whether the Twitter discussion exhibited the same characteristics as campaign news coverage—emphasizing strategy and media "metacoverage" rather than policy issues. Quantitative and qualitative analyses found that the Twitter discussion focused largely on the role of the ABC News moderators and on Mitt Romney's offer of a $10,000 bet. Policy issues received less attention on Twitter than in the news reports.

Introduction

Social media are an integral component of modern political campaigns. Candidates use social platforms to disseminate their messages and mobilize supporters. Citizens, meanwhile, use the same platforms to learn about the candidates and share their opinions. According to the Pew Research Center's Internet & American Life Project (Rainie & Smith, 2012), 36% of social network site users rate the sites as "very important" or "somewhat important" to them in keeping up with political news, and 25% view the sites as important in debating or discussing political issues with others.

Candidate websites, blogs, YouTube, and Facebook all have played significant roles in recent U.S. presidential elections, but in 2012 it was Twitter, more than any other social network, where the political narrative was formed. As Ashley Parker (2012), who covered the 2012 campaign for The New York Times, explained: "If the 2008 presidential race embraced a 24/7 news cycle, four years later politicos are finding themselves in the middle of an election most starkly defined by Twitter, complete with 24-second news cycles and pithy bursts" (para. 3). Fellow Times political correspondent Jonathan Martin noted that Twitter had become "the real-time political wire. That's where you see a lot of breaking news. That's where a lot of judgments are made about political events, good, bad, or otherwise" (Hamby, 2013, p. 24).

Twitter is a microblogging platform that allows a user to post brief messages called

"tweets" that may be read by the user's network of "followers." One of the most popular uses of Twitter during the 2012 U.S. presidential race was tweeting during the televised candidate debates. More than 10 million tweets were posted during the first general-election debate between Democratic President Barack Obama and Republican challenger Mitt Romney, making the debate the most tweeted-about political event in U.S. history (Sharp, 2012). This "second screen" phenomenon has created a hybrid media environment in which the Twitter conversation, organized around topical "hashtags," functions as a parallel stream of information alongside the televised debate (Maruyama, Robertson, Douglas, Semaan & Faucett, 2014). Although most participants in the Twitter conversation would not label themselves journalists, the live Twitter stream may be considered a form of ambient journalism (Hermida, 2010), citizen journalism (Murthy, 2011), or alternative journalism (Poell & Borra, 2011) that provides "a constantly updated public source of raw material in near real-time" (Lewis, Zamith & Hermida, 2013, p. 40).

As news increasingly becomes a "shared social experience" (Purcell, Rainie, Mitchell, Rosenstiel & Olmstead, 2010), it is important for scholars to analyze the content of these social network streams. Much of the research in this vein has analyzed tweets posted during political protests (Papacharissi & de Fatima Oliveira, 2012; Poell & Borra, 2011) or sporting events (Smith & Smith, 2012). Only a few studies have examined live tweeting during a staged political debate, focusing on how live tweeting affects political attitudes and vote choice (Houston, Hawthorne, Spialek, Greenwood & McKinney, 2013; Maruyama et al., 2014) or comparing the conversations of elite and non-elite Twitter users (Hawthorne, Houston & McKinney, 2013).

The present study extends this line of research by comparing the content of tweets posted during the December 10, 2011, Iowa Republican primary debate with news coverage immediately following the debate and with the debate transcript. Specifically, the study seeks to determine whether the Twitter discussion exhibited the same characteristics as traditional political news coverage.

During the past several decades, U.S. political journalism has shifted from predominantly issue-based coverage to "strategy coverage" about the horse race and the campaign tactics needed for candidates to win, and finally to a third stage of "metacoverage" in which journalists' stories focus on the media's role in political affairs (Esser & D'Angelo, 2003; Esser, Reinemann & Fan, 2001; Johnson, Boudreau & Glowaki, 1996; Patterson, 1993). This shift toward more strategic stories and metacoverage has been blamed for an increase in the public's political cynicism (Cappella & Jamieson, 1997; de Vreese & Elenbaas, 2008). Additionally, debate coverage has been faulted for emphasizing negative candidate attacks rather than positive messages (Benoit, Stein & Hansen, 2004; Reber & Benoit, 2001). Twitter may be a partial remedy for some of these problems, elevating the political discourse by offering debate viewers a forum to discuss substantive issues. Or it may exacerbate the ills of traditional political journalism, encouraging negativity and a focus on the trivial.

The present study uses both quantitative and qualitative analysis of the Twitter stream,

the news coverage, and the transcript of the Iowa Republican debate to compare the content of each source. Centering resonance analysis (CRA), a computer-assisted, network-based form of text analysis, is used to map relationships in the discourse by isolating influential words and word pairs (Corman & Dooley, 2006). This method is coupled with a qualitative textual analysis to identify central themes in the discourse.

Literature Review

Presidential Primary Debates

Televised presidential debates are an American political tradition, with an unbroken string of such encounters since 1976. Best and Hubbard (1999) identified three normative functions of candidate debates: engaging viewers in the campaign by highlighting the election stakes and participants, educating viewers about the issues, and informing viewers about the candidates and their qualifications. The primary season, when the Republican and Democratic parties narrow the field of candidates, represents the best time to fulfill those functions because many candidates are still largely unknown, issue agendas and policy positions are still taking shape, and voters' attitudes are susceptible to change. Experimental research has linked watching primary debates to a greater likelihood of participating in the primary, increased learning about the candidates' policies, and changes in citizens' voting intentions and evaluations of the candidates (Benoit, McKinney & Stephenson, 2002; Best & Hubbard, 1999; Yawn, Ellsworth, Beatty & Kahn, 1998).

A separate body of research has examined the content and tone of candidates' messages during primary debates. Benoit, Henson, and Sudbrock (2011) analyzed the 2008 Democratic and Republican primary debates using the Functional Theory of Political Campaign Discourse, which posits that candidates may demonstrate their desirability for office by praising themselves (acclaims), criticizing their opponents (attacks), or responding to an opponent's attack (defenses). Their content analysis found that both the Republicans and Democrats favored acclaims over attacks by a wide margin (67% to 27% for Democrats and 68% to 24% for Republicans), with defenses representing only a fraction of both parties' debate themes. The researchers also compared the debate discussion of policy issues and candidates' character, concluding that issues dominated the debate messages of both the Republican and Democratic candidates (72% to 28% for Democrats and 67% to 33% for Republicans). Thus, political communication research has found primary debates to be largely positive in tone, substantive in nature, and effective in educating the electorate.

News Coverage of Presidential Politics

Even if the candidates strive to present positive, issue-oriented messages during a presidential primary debate, their efforts may be frustrated by other actors in the political process. Jackson-Beeck and Meadow (1979) observed the interplay of three agendas in presidential debates: the agendas of the candidates, the journalists, and the voters. These three agendas have not always been in sync, according to the researchers'

comparison of debate transcripts with polling data. For example, journalists' questions during the debates generally did not correspond with the issues that the public thought were most important.

The incongruity between the agendas of the journalists and the public is not surprising given that news coverage has never been a true mirror of reality. Studies of the sociology of news have shown that journalists, through their individual and institutional routines, actively filter and shape reality rather than merely reflecting it. News is socially constructed (Tuchman, 1978), a pseudo-environment that exists in between "the world outside" and "the pictures in our heads" (Lippmann, 1922). Journalists "frame" the news by choosing which aspects of reality to make most salient in their stories (Entman, 1993). News stories thus "become a forum for framing contests in which political actors compete by sponsoring their preferred definitions of issues" (Carragee & Roefs, 2004, p. 216).

In the case of political reporting, journalists' framing of presidential campaigns has changed dramatically during the past half-century. In the 1960s, the candidates were the main agenda setters, and news coverage emphasized their policy statements (Esser et al., 2001; Kerbel, 1994; Patterson, 1993). By the 1970s, in the wake of the Vietnam War and the Watergate scandal, campaign reporting had taken a turn toward "strategy coverage," marked by six characteristics: (1) winning and losing as the main concern; (2) the language of wars, games and competition; (3) a story with plots, performers, critics and audience (voters); (4) centrality of performance, style, maneuvers, and manipulated appearances of the candidate; (5) journalists' interpretation and their questioning of candidates' motives; and (6) emphasis on opinion polls (Cappella & Jamieson, 1997, p. 33).

Finally, 1988 saw the birth of a third stage of election reporting known as "metacoverage," focused on the media's role as a political actor. Metacoverage may take two forms: (1) "self-coverage," in which journalists treat themselves as the subjects of their own political stories; and (2) "process news" or "publicity metacoverage" about campaign operatives' attempts to influence or manipulate the media, such as through political advertising and "spin doctors" (de Vreese & Elenbaas, 2008; Esser et al., 2001).

The shift from issue-based stories to strategic coverage and metacoverage has been blamed for arousing political cynicism in the electorate, although research findings have not been uniform. Cappella and Jamieson (1997) concluded that the media's framing of political campaigns in strategic terms leaves an impression that politicians are motivated by power, not the public good, creating a "spiral of cynicism" that alienates citizens from politics. Similarly, in experiments by de Vreese and Elenbaas (2008), individuals who read newspaper stories featuring strategy coverage or publicity metacoverage reported higher levels of political cynicism than those who read stories focusing on issue substance. Individuals who read stories featuring press self-coverage also reported higher levels of cynicism, but the difference was not significant.

By contrast, an examination of media-related newspaper and television stories from the

1992 presidential campaign revealed that most of the stories contained only general mentions of the media, such as listings of candidates' TV appearances, rather than discussion of media strategy or performance (Johnson, Boudreau & Glowaki, 1996). The researchers concluded that "fears that coverage of the media is increasing voter cynicism by portraying politicians as self-interested media manipulators and journalists as willing dupes in the manipulation process may be overstated" (Johnson et al., 1996, p. 665).

Studies of presidential debate coverage have not typically focused on strategy coverage or metacoverage, but researchers have analyzed the tone of coverage by comparing the proportions of candidate acclaims and attacks. Benoit et al.'s (2004) comparison of the content of general-election debates from 1980 to 2000 and newspaper coverage of the debates found that even though acclaims were more common than attacks during the debates (61% to 31%), newspaper stories featured the opposite pattern (41% to 50%), suggesting to readers that the debates were more negative than they actually were. A separate study of two primary debates—one Republican and one Democratic—during the 2000 presidential election and corresponding coverage in The New York Times, reached the same conclusion: Whereas the candidates emphasized acclaims, the Times articles emphasized attacks (Reber & Benoit, 2001).

The difference in tone between news coverage and the debates themselves is especially worrisome given the news media's ability to influence voters, even those who watch the debates themselves. One experiment (Fridkin, Kenney, Gershon, Shafer & Woodall, 2007) in which participants watched a 2004 presidential debate between George W. Bush and John Kerry revealed how journalists' analysis can change public perception. Subjects who watched the debate and listened to NBC News' post-debate analysis, which was largely favorable toward Bush, rated Bush more favorably on an assortment of trait and affect assessments. On the other hand, those who watched the debate and read CNN.com's online analysis, which gave Kerry more positive treatment, rated Kerry more favorably (Fridkin et al., 2007).

Twitter and the Voice of the People

Unlike journalists, who process political information through a "strategic schema" and view candidates as strategic actors, the public uses a "governing schema" to focus on how governmental decisions will affect their everyday lives (Patterson, 1993, p. 59). There are indications that the public is demanding a more substantive form of political journalism that corresponds with their governing schema. In a poll conducted by the Pew Research Center for People and the Press during the 2008 presidential campaign, "candidates' positions on issues" and "candidate debates" were the top topics that the public wanted covered more—77% wanted more issue coverage and 57% wanted more debate coverage (Project for Excellence in Journalism, 2007).

There also are indications, however, of a gap between what citizens say they want in political coverage and the kinds of news stories they actually choose to consume. Trussler and Soroka (2014) found that even people who indicated on a survey that they

wanted to read positive political stories tended to select negative stories when presented with a choice. The researchers suggested that the media's focus on negative and strategy-based political coverage may be, at least in part, a response to public demand.

Traditionally, the electorate had little voice in presidential campaigns. Members of the public assumed the role of debate spectators as journalists crafted the questions to be asked of the candidates. That began to change in 1992 with the introduction of the town hall debate format, which allowed citizens to question the candidates directly. McKinney (2005) found that the issue agenda of the 1992 and 2004 town hall debates strongly correlated with opinion polls measuring the public's most important issues, leading him to conclude that citizens "have demonstrated their ability to perform an important function in the debate exchange" (p. 209). Even in the town hall debates, however, the candidates and the media still retained considerable control over the proceedings (McKinney, 2005).

An even more significant development than the town hall debate format was the introduction of social networking sites such as Facebook and YouTube, beginning with the 2008 presidential campaign. These new communication technologies transformed online spaces from mouthpieces that amplify candidate messages into participatory spaces that function as a "digital agora" (Kirk & Schill, 2011, p. 326).

By 2012, the microblogging site Twitter had become the primary social network site for discussing the U.S. presidential race, and it was used by the campaigns, journalists, and seemingly everybody else. Twitter was first made available to the public in August 2006, and by the third quarter of 2014 the microblogging service had 284 million average monthly active users ("Twitter reports third quarter 2014 results," 2014). Twitter users may post messages of 140 characters or fewer, which can spread quickly through the Twittersphere via the practice of retweeting, in which a user forwards the tweet to his or her followers. This network structure suggests the possibility of a more democratic and egalitarian form of news distribution than traditional journalism. As The Washington Post stated in an article about the 2012 presidential race: "The old journalistic hierarchy that once aggrandized major newspapers and national networks has flattened out, giving any boy, girl or baby on the bus with a Twitter feed the same opportunity to drive the race as the most established brand names" (Horowitz, 2012, para. 4).

Several scholars have explored the relationship between Twitter and journalism. Although Twitter is not a news site run by journalists, it is often quicker than traditional news sites in capturing breaking news (Sankaranarayanan, Samet, Teitler, Lieberman & Sperling, 2009). Eyewitnesses can tweet firsthand accounts from the scene of a major news event in real time. Murthy (2011) argued that Twitter "has at its disposal a virtual army of citizen journalists ready to tweet at a moment's notice" (p. 783). Hermida (2010) regards Twitter as a form of ambient journalism, considering the microblogging platform to be an "awareness system" whose value rests less with the contents of individual tweets than with the overall portrait created by accumulated tweets over time (p. 301). Twitter has been likened to both a newswire, because it provides continually updated raw information, and to a newsroom, because serves as a site for evaluating, verifying, and highlighting relevant information (Lewis, Zamith & Hermida, 2013).

Papacharissi and de Fatima Oliveira (2012) examined the nature of news storytelling on Twitter by analyzing tweets posted during the Egyptian uprisings of 2011. They found that the Twitter stream reflected traditional news values such as proximity and conflict, as well as four news values unique to Twitter: instantaneity, crowdsourced elites, solidarity, and ambience. The researchers characterized the Twitter discussion as affective in the way it blended news, opinion, and emotion to a degree that it was impossible to separate one from the other. Poell and Borra (2011) studied tweets, along with videos and photos posted to YouTube and Flickr, as a form of alternative journalism during the protests at the 2010 Toronto G20 summit. In many ways, the Twitter stream resembled often-criticized mainstream journalistic practices, such as a focus on police activities rather than the reasons behind the protests. Although a small number of sources dominated on all three forms of social media, Twitter showed more evidence of crowdsourcing than the other two sites due to the practice of retweeting (Poell & Borra, 2011).

Twitter as a Second Screen

One popular use of Twitter is as a second screen during live television events. According to a Nielsen (2013) survey, nearly half of smartphone and tablet computer owners use their devices as second screens while watching TV every day. The phone or tablet is used most frequently for web searching and browsing, but 21% of tablet owners and 18% of smartphone owners said they read conversations about the TV program on social networking sites. Smith and Smith (2012) found that these conversations helped build identity and community by creating a “virtual watercooler” during the final games of the 2012 College World Series of Baseball. Participants in the Twitter discussion about the baseball series maintained game commentaries and used Twitter as a site for celebration, cheering and encouragement, as well as for jeering and taunting the opposing team (Smith & Smith, 2012).

Only a few studies have examined live tweeting of political debates. Maruyama et al. (2014) found that Twitter users who actively tweeted during a debate were significantly more likely to change their vote decision immediately after the debate than those who simply monitored the Twitter stream or did not use Twitter at all. Similarly, Houston et al. (2013) found that live tweeting during a 2012 presidential debate was associated to changes in perceptions of Barack Obama and Mitt Romney. In one of the few studies to analyze the content of tweets, Hawthorne et al. (2013) found little difference in the issues discussed by elite and non-elite Twitter users during a 2012 primary debate.

The present study extends this line of research by comparing discussion on Twitter during an Iowa Republican primary debate in the 2012 U.S. presidential campaign with news coverage and the debate itself. Two research questions are posed:

RQ1: How did the Twitter stream from the Iowa primary debate compare with news coverage and the debate itself in the discussion of policy and character?

RQ2: How did the Twitter stream from the Iowa primary debate compare with news

coverage in the use of strategy coverage and media-focused metacoverage?

Method

This study used a combination of quantitative centering resonance analysis (CRA) and qualitative textual analysis to study the Twitter conversation during the December 10, 2011, Iowa Republican primary debate and compare it to mainstream news coverage and the candidates' debate statements.

Sampling

The December 10, 2011, Republican primary debate took place at Drake University in Des Moines, Iowa, and was sponsored by ABC News, The Des Moines Register, and the Republican Party. This debate was selected as the research focus for several reasons. First, political scholars have observed that primary debates, occurring early in the campaign season, have a strong potential to influence voters because many candidates are still largely unknown and many citizens are still undecided about whom to support. Because all of the candidates are from the same political party, debate viewers are forced to look beyond party identification to distinguish among the candidates and evaluate their performance. Thus, it was expected that the Twitter discussion would rise above simple partisan bickering. Finally, the debate occurred while the GOP race was still wide open. It featured six candidates—Mitt Romney, Newt Gingrich, Rick Perry, Michele Bachmann, Rick Santorum, and Ron Paul—ensuring a diversity of viewpoints and a lively exchange. The weeks preceding the first-in-the-nation Iowa caucuses are crucial in the presidential race because candidates who do better than expected in the state may see a burst of momentum while those who fare poorly may see their electoral chances slip away (Mayer & Busch, 2004).

Tweets were collected from 8 p.m. Central time, when the debate started, until 10:30 p.m., about a half-hour after the debate had concluded. The tweets were located by performing a Twitter search for all tweets containing the hashtags #RepublicanDebate, #GOPDebate, and #IowaDebate and refreshing the search throughout the evening. The process yielded a total of 3,032 tweets. This total obviously does not include all tweets related to the debate, such as those that did not use one of the three hashtags, but it provided a large and diverse enough sample to assess the overall content and tone of the Twitter stream.

ABC News posted a full transcript of the debate online, which was used to analyze the content of the debate.

Finally, the main debate news story was collected from the websites of each of the three leading U.S. newspapers known for their coverage of national politics (The New York Times, The Washington Post, and The Los Angeles Times), from two major wire news services whose stories appear across the nation and the world (The Associated Press and McClatchy Newspapers), and from the website of the debate host city's newspaper (The Des Moines Register). These stories, representing a purposive sample of debate

news coverage, were obtained at approximately midnight Central time, about two hours after the debate had ended, in order to collect immediate news coverage rather than "next-day" stories that might appear the following morning.

Quantitative and Qualitative Analysis

Following the recommendations of Lewis et al. (2013) for the content analysis of large datasets, this study used a hybrid approach that combined computational analysis, designed to identify patterns in the data that the researcher might otherwise miss, and manual analysis, which is more sensitive to context and latent textual meanings.

The tweets, news articles, and debate transcript were each analyzed separately using Crawdad Text Analysis software, which performs centering resonance analysis (CRA), a method of studying large sets of texts to identify the most influential words that link other words in the network (Corman & Dooley, 2006). Unlike traditional computational methods based solely on word frequency, CRA is able to isolate influential words that create coherence in a text network (Crawdad Technologies LLC, 2010). The influence of a word is determined by measuring its betweenness centrality—"its likelihood of being on the shortest path in the network connecting any other two words" (McPhee, Corman, & Dooley, 2002, p. 276). Results are presented as maps showing the associations between words and as lists of the most influential words and word pairs and their betweenness-centrality measures (McPhee, Corman, & Dooley, 2002).

CRA has been used by researchers to study the framing of terrorism in U.S. and United Kingdom newspapers (Papacharissi & de Fatima Oliveira, 2008), crisis communication strategies used in the speeches of the CEO of tobacco company Phillip Morris (de Fatima Oliveira & Murphy, 2009), and similarities and differences between corporate ethics codes (Canary & Jennings, 2008). It also has been used to analyze Twitter conversations, including tweets related to the Egyptian uprisings (Papacharissi & de Fatima Oliveira, 2011) and the use of Twitter by public relations professionals as part of the professional identity construction process (Gilpin, 2011). Thus, its validity as a research tool has been established.

When performing the CRA, rules were created to exclude words that were likely to be influential but were not meaningful for research purposes. The first and last names of the candidates were excluded, as were titles such as "Mr.," "Mrs.," "Sen.," and "Gov.," and the three hashtags #GOPDebate, #RepublicanDebate, and #IowaDebate.

The results of the CRA helped guide the qualitative textual analysis, in which the researcher read the debate-related Twitter stream, the news stories, and the debate transcript several times in an effort to identify key themes regarding the content and tone of the discussion. Qualitative textual analysis enables the researcher to look beyond the manifest content of media messages to consider patterns of latent meaning (Fürsich, 2008). In presenting the findings of the textual analysis, tweets are reproduced in their original form, including any spelling, grammar, or punctuation errors.

Results

Figures 1, 2, and 3 map the associations of the most influential words in the debate transcript, news coverage, and Twitter stream, respectively. For each source, the most influential words appear in black boxes, other words with very high influence appear in gray boxes, and less influential words are unboxed. Lines show the associations among words, with darker lines indicating stronger levels of association. Tables 1, 2, and 3 list the word pairs that were most influential in each of the three sources, along with their corresponding betweenness centrality values. Betweenness centrality values range from 0 to 1. Values of .01 or greater are considered significant (Corman & Dooley, 2006). For this study, a value of .02 was used as the cutoff point in order to keep the number of influential words and word pairs to a manageable size and make the data easy to visualize.

Figure 1. *Centering Resonance Analysis of GOP Primary Debate Transcript*

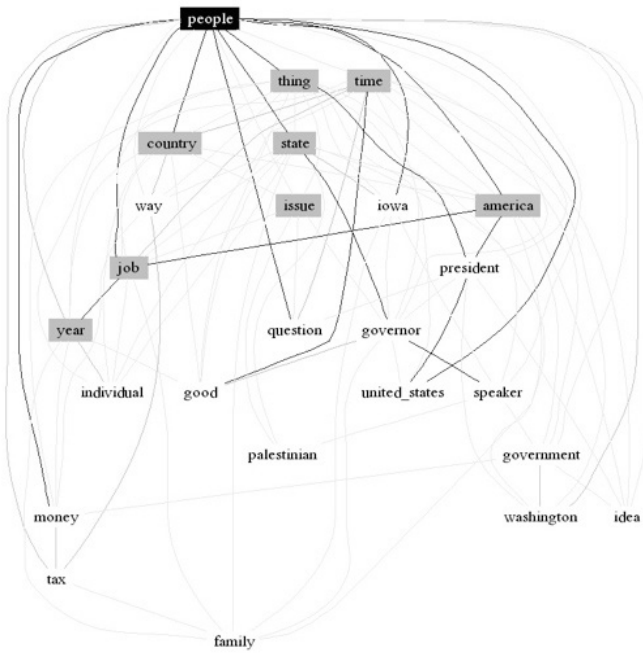

Figure 2. *Centering Resonance Analysis of News Coverage of Debate*

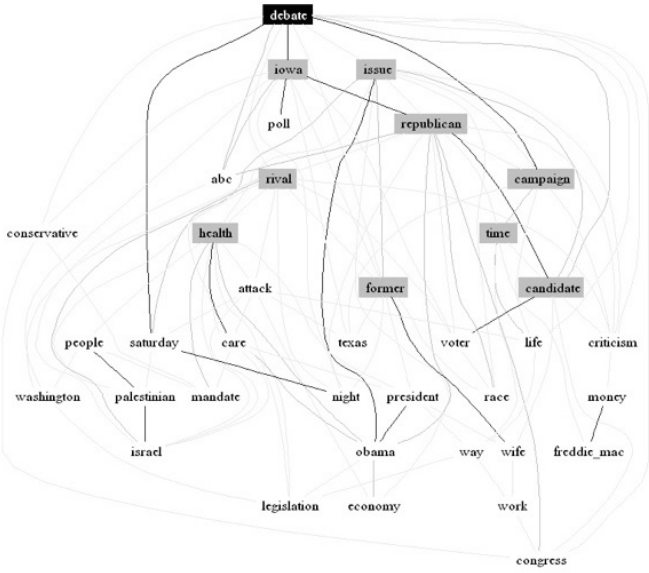

Figure 3. *Centering Resonance Analysis of Twitter Discussion of Debate*

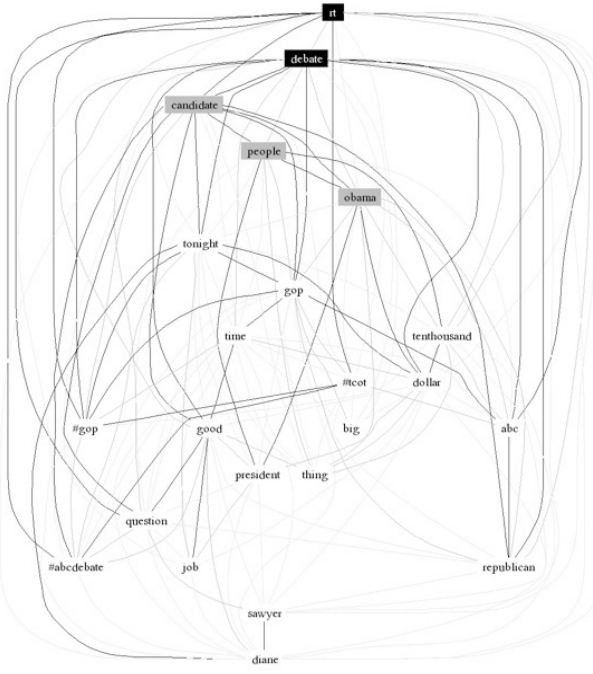

Table 1. *Most Influential Word Pairs in GOP Primary Debate Transcript*

Word Pairs	Betweenness Centrality
people | country	0.261
people | state	0.086
people | job	0.065
people | thing	0.062
people | American	0.055
people | America	0.053
people | Iowa	0.051
people | year	0.025
people | time	0.021
people | number	0.020

Table 2. *Most Influential Word Pairs in News Coverage of Debate*

Word Pairs	Betweenness Centrality
debate | Iowa	0.053
debate | campaign	0.034
Iowa | Republican	0.032
health | care	0.030
debate | Saturday	0.026

Table 3. *Most Influential Word Pairs in Twitter Discussion of Debate*

Word Pairs	Betweenness Centrality
tenthousand | dollar	0.250
debate | GOP	0.153
debate | tonight	0.103
debate | Republican	0.095
debate | ABC	0.081
debate | candidate	0.071
candidate | GOP	0.067
debate | good	0.059
RT | #tcot	0.050
RT | debate	0.042
tenthousand | bet	0.041
dollar | bet	0.041
RT | candidate	0.033
#tcot | #GOP	0.028
debate | dollar	0.027
debate | #GOP	0.023
Sawyer | Diane	0.023
Obama | president	0.022
RT | #ABCdebate	0.021

According to the CRA maps, “people” was the most influential word in the debate transcript, suggesting that the candidates sought to humanize their messages and appeal to the television audience. Not surprisingly, the word “debate” was most influential in the news coverage, indicating that journalists focused their coverage on the event itself. The word “debate” also was highly influential in the Twitter stream, suggesting that the tweets also exhibited a strong event-based focus, as was “RT,” an abbreviation for retweet. Retweeting was a common practice throughout the debate as Twitter users forwarded information they found particularly insightful or humorous.

RQ1 asked how the Twitter stream compared with news coverage and the debate itself in the discussion of policy and character. An examination of the CRA maps, along with the lists of influential word pairs, shows that policy issues were featured prominently in the debate and the subsequent news coverage, but not in the Twitter discussion. In the debate transcript and the news coverage, but not in the tweets, the word “issue” was highly influential, appearing in a gray box in both CRA maps. In the debate transcript, the words “Palestinian,” denoting discussion of the Israeli-Palestinian conflict, and “money” and “tax,” signaling discussion of economic matters, also were influential. Interestingly, policy issues were even more prominent in the news coverage, where such words as “economy,” “Freddie Mac,” “Palestinian,” “Israel,” and the combination of “health” and “care” were among the most influential. In fact, the pairing of “health” and “care” was among the most influential word pairs in the news articles. By contrast, no issue-related

words were among the most influential within the Twitter stream.

This does not mean, however, that the Twitter conversation was devoid of policy matters. Qualitative analysis of the stream revealed that Twitter users did mention some policy issues, but not necessarily the ones being debated. Rather than adhering to the issue agenda set by the moderators and the candidates, Twitter users treated the microblogging platform as a forum to discuss issues personally important to them. Several tweets took the form of personal pleas to the candidates or moderators to address issues that were being neglected:

Why can't they address 'student debt' instead as opposed to 'faith' in the #iowadebate. Let's get down to business.

Gov. Perry, how will you protect homeschooling families when you become president. #IowaDebate

ask candidates their thoughts on the stock act and how they feel about law makers placing trades on inside info #iowadebate

Turning to the matter of candidate character, the CRA revealed no influential character-related words for the debate transcript. The map for the news coverage, however, revealed a strong association between the words "former" and "wife," a reference to Newt Gingrich's history of marital infidelity. This topic arose when one of the debate moderators asked whether voters should consider whether a candidate has been faithful to his or her spouse when deciding whom to support for president.

On Twitter, the combination of "tenthousand" (treated as a single word for purposes of the CRA) and "dollar" was the most influential word pair within the stream. Other combinations of those words together with "bet" also were highly influential. These words refer to a moment during the debate when Mitt Romney leaned over to Rick Perry and offered to bet $10,000 over their differing views on whether Romney had shifted his position on a health care mandate. Perry declined the offer. To users on Twitter, the exchange spoke to Romney's character, suggesting that he was a wealthy man who was out of touch with ordinary citizens:

Why the hell is Mitt betting 10k, during a debate? Way to be an everyman, Mitt. #1percenter. #gopdebate #IowaDebate #tcot

Nothing says I relate the the American people @MittRomney like trying to make a $10,000 dollar bet on national TV #iowadebate

Mitt Romney may have lost the nomination on a #10kbet that nobody actually took. #iowadebate

The discussion quickly caught fire on Twitter and remained a hot topic throughout the evening. A Democratic Party operative would later create a Twitter hashtag,

#What10KBuys, to capitalize on Romney's apparent faux pas and keep the discussion going.

Interestingly, the bet offer was not mentioned at all in three of the six news articles (though it would later be discussed in stories the following day). In those articles in which it was mentioned, it was not referenced until the 12th paragraph or later and received only brief attention. For example, the Des Moines Register article referred to it only in passing:

> Romney, who had earlier in the debate challenged a rival to a $10,000 bet, said he did not grow up poor, though his father did. He said his father passed on the values of hard work and smart spending. He also talked of his Mormon faith, noting he served the less fortunate overseas through his church.

RQ2 asked how the Twitter stream compared with news articles in the use of strategy coverage and media-focused metacoverage. Quantitative and qualitative analyses revealed that both the news articles and the Twitter stream contained elements of strategy coverage or media-focused metacoverage, but there were differences in the forms that it took.

In the news articles, strategy coverage was clearly seen in the emphasis on polls and the horse-race aspect of the campaign. "Poll," "rival," and "attack" appeared as highly influential words in the CRA map. All six of the news articles focused on Gingrich in the lead paragraph, noting his new status as the GOP front-runner after Iowa and national polls had shown him seizing the lead from Romney. For example, the Los Angeles Times story began with a strategy focus:

> With Newt Gingrich as their common target, the Republican presidential hopefuls piled on the new party front-runner in a lively debate Saturday night, jabbing him over his political consistency, the sturdiness of his character and the plausibility of his policy proposals.

Strategy coverage in the Twitter stream, on the other hand, focused on the stagecraft and performance aspects of the debate. Twitter users noted, for example, that the candidates did not do the traditional introductory "pageant walk" to enter the stage. Several users commented that the debate stage resembled the set of the game show "Jeopardy." The debate also was likened to a circus in which the candidates were the clowns. Candidate appearance was another popular topic of discussion, with several Twitter users noting that all of the male candidates except Romney wore red ties.

The Twitter stream, unlike the news articles, also contained a great deal of media-focused "metacoverage," suggesting that in the eyes of Twitter users, the debate was more a media-created event than a political dialogue. Much of the Twitter discussion focused on the performance of the ABC News moderators, Diane Sawyer and George Stephanopolous. "ABC," the hashtag "#ABCdebate," and the combination of "Diane" and "Sawyer" appeared in the CRA map of influential words and in the list of influential word

pairs. Sawyer was a favorite target, drawing much criticism for her demeanor and her lines of questioning:

Diane Sawyer is a horrible moderator. Holy crap I'm irritated. Really irritated is a nice way to put it #iowadebate #abcdebate

The moderators 4 the GOP debates are out of touch with the American People as the candidates. I expected better, Diane Sawyer. #IowaDebate

WHY is Diane Sawyer so condescending? It's a room full of adults, not a bunch of urchins pulled out of the reform school. #IowaDebate

Diane Sawyer's questions are meandering all over the place. #iowadebate

In addition to frustration with Sawyer, some Twitter users expressed frustration with the news media in general:

@elainetangerine That's what you get with TV. No depth. #IowaDebate

Could the media Manipulation get any more obvious? So much about Newt G, Ron Paul clearly won this debate #IowaDebate

Discussion

News coverage of U.S. presidential elections has been faulted for fostering political cynicism by emphasizing campaign strategy and the role of the media rather than in-depth discussion of policy issues. This study sought to determine whether the ambient journalism on Twitter exhibits the same characteristics. The study compared the tweets posted during a Republican primary debate in the 2012 presidential campaign with news stories published shortly after the debate.

Quantitative and qualitative analyses revealed that the Twitter discussion was far less substantive than the coverage found on the websites of leading newspapers and wire services. Whereas the news reports stayed faithful to the debate, addressing the issues raised by the candidates and moderators, the Twitter stream was dominated by comments about the staging of the event, candidate appearance, and the performance of the journalist moderators. Arguably trivial matters, such as Mitt Romney's remark challenging Rick Perry to a $10,000 bet, became focal points of discussion while policy matters received scant attention.

It is impossible to generalize based on a study of one debate involving one political party during one election cycle. But if the tweets posted during the Iowa debate are indicative of wider political discussion on Twitter, the microblogging platform might magnify, rather than alleviate, the problems associated with mainstream news coverage of presidential campaigns. This finding is in line with other studies that have shown Twitter perpetuates often-criticized journalistic practices, such as Poell and Borra's (2011) finding that tweets

during the protests at the 2010 Toronto G20 summit focused more on police activities than on the reasons behind the protests.

To be fair, most Twitter users make no claim to be journalists and are under no obligation to be fair or balanced while tweeting about a news event such as a presidential debate. Furthermore, the 140-character limitation of tweets makes in-depth analysis of policy matters almost impossible. The Twitter second screen, then, is a highly eclectic collection of small bits of information, both serious and frivolous, substantive and trivial. This can be problematic when Twitter becomes a "first screen"—a substitute for witnessing an event or for reading or viewing subsequent news reports. Several people who posted on Twitter during the Iowa primary debate indicated that they believed Twitter could provide all they needed to know about the presidential debate:

Not watching the debate, will follow the #iowadebate hashtag

Glad I have @BorowitzReport and @TheInDecider to provide me balanced coverage of #RepublicanDebate since there's no way I'm watching it.

These individuals who relied exclusively on Twitter would have received a highly skewed version of the debate that was missing critical details. Furthermore, given the Twitter stream's heavy focus on strategy and metacoverage, these individuals might have come away feeling more cynical about the Republican candidates or presidential politics in general. Twitter certainly provides a valuable forum for sharing observations about political events in real time, but it does not yet appear to be a substitute for traditional journalism. Some form of editorial "gatekeeping" or "curating" is still needed to evaluate information and add context and perspective.

Although the content of the Twitter discussion raises some causes for concern, it also hints at the possibility of positive changes in politics and journalism. Many of the tweets about the Iowa debate were snarky or even rude, but they often carried a serious message, serving as a critique of the debate format, the media's performance, and the artificiality of the event. In an era of open, participatory media, Twitter users lashed out at the contrived nature of the debate, the tight control over the event by the candidates and moderators, the lack of attention to issues that truly matter to voters, and a general lack of authenticity. Politicians and journalists would do well to heed such criticism.

Perhaps the freewheeling discussions on social media ultimately will produce changes in the presidential debate format, giving citizens a greater voice and more opportunities to engage with the candidates. Social media also might help usher in a new era of political news coverage. If the first era of political coverage focused on the candidates' issues, the second era on the candidates' strategies, and the third era on the role of the media in the political process, perhaps Twitter and other social media signal the beginning of a fourth era focused directly on the voters and their priorities. Researchers might consider surveying or interviewing political journalists to determine whether they monitor social media to gauge voter opinion and how that influences the content of the stories they produce.

References

Benoit, W. L., Henson, J. R., & Sudbrock, L. A. (2011). A functional analysis of 2008 U.S. presidential primary debates. *Argumentation and Advocacy,* 48(2), 97-110.

Benoit, W. L., McKinney, M. S., & Stephenson, M. T. (2002). Effects of watching primary debates in the 2000 U.S. presidential campaign. Journal of Communication, 52(2), 316-331.

Benoit, W. L., Stein, K. A., & Hansen, G. J. (2004). Newspaper coverage of presidential debates. *Argumentation and Advocacy*, 41(1), 17-27.

Best, S. J., & Hubbard, C. (1999). Maximizing "minimal effects": The impact of early primary season debates on voter preferences. *American Politics Research*, 27(4), 450-467.

Canary, H. E., & Jennings, M. M. (2008). Principles and influence in codes of ethics: A centering resonance analysis comparing pre- and post-Sarbanes-Oxley codes of ethics. *Journal of Business Ethics*, 80(2), 263-278.

Cappella, J. N. & Jamieson, K. H. (1997). *Spiral of cynicism: The press and the public good*. New York: Oxford University Press.

Carragee, K. M. & Roefs, W. (2004). The neglect of power in recent framing research. *Journal of Communication*, 54(2), 214-233.

Corman, S., & Dooley, K. (2006). *Crawdad text analysis system*. Chandler, Arizona: Crawdad Technologies, LLC.

Crawdad Technologies LLC (2010). Crawdad text analysis software. Retrieved December 11, 2014, from https://web.archive.org/web/20131011082532/http://www.crawdadtech.com/

de Fatima Oliveira, M., & Murphy, P. (2009). The leader as the face of a crisis: Philip Morris' CEO's speeches during the 1990s. *Journal of Public Relations Research*, 21(4), 361-380.

de Vreese, C. H., & Elenbaas, M. (2008). Media in the game of politics: Effects of strategic metacoverage on political cynicism, *Press/Politics*, 13(3), 285-309.

Entman, R. E. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51-58.

Esser, F., & D'Angelo, P. D. (2003). Framing the press and the publicity process: A content analysis of meta-coverage in Campaign 2000 network news. *American Behavioral Scientist,* 46(5), 617-641.

Esser, F., Reinemann, C., & Fan, D. (2001). Spin doctors in the United States, Great Britain, and Germany: Metacommunication about media manipulation. *Press/Politics*, 6(1), 16-45.

Fridkin, K. L., Kenney, P. J., Gershon, S. A., Shafer, K., & Woodall. G. S. (2007). Capturing the power of a campaign event: The 2004 presidential debate in Tempe. *The Journal of Politics*, 69(3), 770-785.

Fürsich, E. (2008). In defense of textual analysis: Restoring a challenged method for journalism and media studies. *Journalism Studies*, 10(2), 238-252.

Gilpin, D. R. (2011). Working the Twittersphere. In Z. Papacharissi (Ed.), *A networked self: Identity, community, and culture on social network sites*. New York: Routledge.

Hamby, P. (2013, September). Did Twitter kill the Boys on the Bus? Searching for a better way to cover a campaign. *Joan Shorenstein Center*. Retrieved December 11, 2014, from http://shorensteincenter.org/wp-content/uploads/2013/08/d80_hamby.pdf

Hawthorne, J., Houston, J. B., & McKinney, M. S. (2013). Live-tweeting a presidential primary debate: Exploring new political conversations. *Social Science Computer Review*, 31(5), 552-562.

Hermida, A. (2010). Twittering the news: The emergence of ambient journalism. *Journalism Practice*, 4(3), 297-308.

Horowitz, J. (2012, October 30). For campaigns' traveling press corps, social media has changed way game is played. *The Washington Post*. Retrieved December 11, 2014, from http://www.washingtonpost.com/politics/decision2012/for-campaigns-traveling-press-corps-social-media-has-changed-way-game-is-played/2012/10/30/32b0ceea-2299-11e2-ac85-e669876c6a24_story.html

Houston, J. B., Hawthorne, J., Spialek, M. L., Greenwood, M., & McKinney, M. S. (2013). Tweeting during presidential debates: Effect on candidate evaluations and debate attitudes. *Argumentation and Advocacy*, 49(4), 301-311.

Jackson-Beeck, M., & Meadow, R. G. (1979). The triple agenda of presidential debates. *Public Opinion Quarterly*, 43(2), 173-180.

Johnson, T. J., Boudreau, T., & Glowaki, C. (1996). Turning the spotlight inward: How five leading news organizations covered the media in the 1992 presidential election. *Journalism & Mass Communication Quarterly*, 73(3), 657-671.

Kerbel, M. R. (1994). *Edited for television: CNN, ABC, and the 1992 presidential campaign.* Boulder, CO: Westview.

Kirk, R., & Schill, D. (2011). A digital agora: Citizen participation in the 2008 presidential debates. *American Behavioral Scientist*, 55(3), 325-347.

Lewis, S. C., Zamith, R., & Hermida, A. (2013). Content analysis in an era of Big Data: A hybrid approach to computational and manual methods. *Journal of Broadcasting & Electronic Media*, 57(1), 34-52.

Lichter, R., & Smith, T. (1996). Why elections are bad news: Media and candidate discourse in the 1996 presidential primaries. *Press/Politics, 1*(4), 15-35.

Lippmann, W. (1922). *Public opinion*. New York: Free Press Paperbacks.

Maruyama, M., Robertson, S. P., Douglas, S. K., Semaan, B. C., & Faucett, H. A. (2014). Hybrid media consumption: How tweeting during a televised political debate influences the vote decision. *In Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing,* 1422-1432.

Mayer, W. G., & Busch, A. E. (2004). *The front-loading problem in presidential elections*. Washington, DC: Brookings Institution Press.

McKinney, M. (2005). Let the people speak: The public's agenda and presidential town hall debates. *American Behavioral Scientist*, 49(2), 198-212.
McPhee, R. D., Corman, S. R., & Dooley, K. (2002). *Organizational knowledge expression and management. Management Communication Quarterly*, 16(2), 274-281.

Murthy, D. (2011). Twitter: Microphone for the masses? *Media, Culture & Society*, 33(5), 779-789.

Nielsen (2013, June 17). *Action figures: How second screens are transforming TV viewing*. Retrieved December 11, 2014, from http://www.nielsen.com/us/en/insights/news/2013/action-figures--how-second-screens-are-transforming-tv-viewing.html

Papacharissi, Z., & de Fatima Oliveira, M. (2008). News frames terrorism: A comparative analysis of frames employed in terrorism coverage in U.S. and U.K. newspapers. *The International Journal of Press/Politics*, 13(1), 52-74.

Papacharissi, Z., & de Fatima Oliveira, M. (2012). Affective news and networked publics: The rhythms of news storytelling on #Egypt. *Journal of Communication*, 62(2), 266-282.

Parker, A. (2012, January 28). In nonstop whirlwind of campaigns, Twitter is a critical tool. *New York Times*. Retrieved December 11, 2014, from http://www.nytimes.com/2012/01/29/us/politics/twitter-is-a-critical-tool-in-republican-campaigns.html?pagewanted=all&_r=0

Patterson, T. E. (1993). *Out of order*. New York: Alfred A. Knopf.

Poell, T., & Borra, E. (2011). Twitter, YouTube, and Flickr as platforms of alternative journalism: The social media account of the 2010 Toronto G20 protests. *Journalism*, 13(8), 1-19.

Project for Excellence in Journalism (2007, October 29). The invisible primary—invisible no longer: A first look at coverage of the 2008 presidential campaign. Retrieved December 11, 2014, from http://www.journalism.org/files/legacy/The%20Early%20Campaign%20FINAL.pdf

Purcell, K., Rainie, L., Mitchell, A., Rosenstiel, T., & Olmstead, K. (2010, March 1). Understanding the participatory news consumer: How Internet and cell phone users have turned news into a social experience. *Pew Research Center*. Retrieved December 11, 2014, from http://www.pewinternet.org/~/media//Files/Reports/2010/PIP_Understanding_the_Participatory_News_Consumer.pdf

Rainie, L., & Smith, A. (2012, September 4). Politics on social networking sites. *Pew Research Center Internet & American Life Project.* Retrieved December 11, 2014 from http://www.pewinternet.org/files/old-media//Files/Reports/2012/PIP_PoliticalLifeonSocialNetworkingSites.pdf

Reber, B. H., & Benoit, W. L. (2001). Presidential debate stories accentuate the negative. *Newspaper Research Journal*, 22(3), 30-43.

Sankaranarayanan, J., Samet, H., Teitler, B. E., Lieberman, M. D., & Sperling, J. (2009). TwitterStand: News in tweets. *Proceedings of the 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, 42-51.

Schill, D., & Kirk, R. (2014). Issue debates in 140 characters: Online talk surrounding the 2012 debates. In J. A. Hendricks & D. Schill (Eds.), *Presidential campaigning and social media: An analysis of the 2012 campaign* (pp. 198-217). New York: Oxford University Press.

Sharp, A. (2012, October 4). Dispatch from the Denver debate. *The Official Twitter Blog*. Retrieved December 11, 2014, from https://blog.twitter.com/2012/dispatch-from-the-denver-debate

Smith, L. R., & Smith, K. D. (2012). Identity in Twitter's hashtag culture: A sport-media-consumption case study. *International Journal of Sport Communication*, 5(4), 539-557.

Trussler, M., & Soroka, S. (2014). Consumer demand for cynical and negative news frames. *The International Journal of Press/Politics*, 19(3), 360-379.

Tuchman, G. (1978). *Making news: A study in the construction of reality*. New York: Free Press.

Twitter reports third quarter 2014 results (2014, October 27). Retrieved December 11, 2014, from http://files.shareholder.com/downloads/AMDA-2F526X/3705477860x0x788942/56ff9307-8505-4fe9-9ca6-fb84aba86863/2014%20Q3%20Earnings%20Release.pdf

Yawn, M., Ellsworth, K., Beatty, B., & Kahn, K. F. (1998). How a presidential primary debate changed attitudes of audience members. *Political Behavior*, 20(2), 155-181.

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The Age of Digital Collaboration: A Case Study of Arquitetura da Gentrificação, a Brazilian Collaborative Platform for Citizen Journalism

Soraia Herrador Costa Lima de Souza

Citizen journalism is a practice that is in the process of adoption by newsrooms. The emergence of social media and digital platforms has only amplified the potential of the audience in journalism. This paper hypothesizes that digital platforms are important tools to citizen journalism: They can provide the data and financial resources that are needed to develop independent media. In order to prove such a theory, this research analyzes Arquitetura da Gentrificação, a Brazilian initiative that employs citizen journalism and data-driven journalism to discuss urbanistic problems in the city of São Paulo.

Introduction

The Internet has given the audience something that, until recently, was quite limited: interactivity. The Internet also provided them with the possibility to produce content and contribute to the circulation of information, making them so-called “prosumers” (Kotler, 2010). Through collaborative hypertext, in which weblogs and Wiki language are the most notorious representatives, the audience can produce and disseminate content without depending on any news media (Primo & Recuero, 2006).

Some research indicates that the audience requires a more participatory communication platform that could extend beyond the production of comments, e-mails, or phone calls. Consultants NM Incite, a company that is related to research institutes Nielsen/ McKinsey (2011), there were more than 181 million blogs worldwide—an incredible increase compared to the 36 million that were registered in 2006, when the research was conducted for the first time.[1]

Blogs and Wiki webpages were the first steps, but the emergence of social media promoted the growing opportunity for users to produce their own content. This scenario is predictable by reading a comScore report [2] (2014), a profile of Brazilian users in early 2014.

According the research, Brazil continues to lead online engagement, with users browsing

29.7 hours per month—seven hours more than the world average. This country has the world's fifth-largest audience, with 68.1 million unique visitors in February 2014, an 11% increase compared to February 2013. They remained online for 126,857 million minutes in 2014.

These statistics show a very promising scenario for those who work in the virtual environment. However, they do not reveal whether or not such participation and time undertaken by users necessarily corresponds to the production of relevant content, which brings a good opportunity for media companies to propose to Internet users direct forms of collaborative (and relevant) enrollments.

Newspaper companies have already tried some projects in order to promote this collaborative environment. Some of them are very simple; they ask the audience to send texts, photos, videos, and social media posts to contribute to specific reports or projects.

Although they are valuable initiatives, newsrooms can amplify this participation by inviting users to contribute to issues of public interest, which are more relevant than the mere participation in a particular agenda. The present paper analyses a Brazilian project that uses the concepts of citizen journalism and data-driven journalism to investigate urban-related problems in one of the most economically important cities in Latin America: São Paulo.

Arquitetura da Gentrificação[3] is an independent and collaborative project in partnership with NGO Reporter Brazil. It produces a series of reports about the gentrification processes that occur, especially in the downtown area. In order to sustain this independency, the team chose only crowdfunding to obtain the financial support it needed.

This project led to these research questions:

R1. Is it possible to make investigative reports without the active support of a large newspaper company?

R2. Is crowdfunding a valid initiative to finance journalistic projects in Brazil?

R3. Is the digital platform the best suited to the publication of broad and deep research, as presented by the Arquitetura da Informação project?

In order to answer these questions, the methodology chosen for this research included analyses of texts, graphics, videos and other resources used in the project that are based on the theoretical framework presented in this paper. In addition, a telephone interview was conducted with the author of the project, freelance journalist Sabrina Duran, on December 8, 2014, so that she could clarify some particular aspects of the initiative.

Collaborative Environment

The popularization of computers and the Internet during the 1990s brought to light a new designation for those who navigate in the World Wide Web: users. They acquire the autonomy to read and to write as they want and, the most important thing, to create media, questioning issues such as authorship and linear reading, which are complex processes that have already been discussed by Barthes (1998) and Eco (2002).

However, past the early stages of hypertext, the third generation of hypertext emerged (Recuero & Primo, 2006). It is a generation characterized by collaboration through the digital environment in which the audience is able to interact and produce content. They do not need to follow the workflow proposed by Shannon and Weaver (1940), simplified by the triad "sender-message-receiver." Users access, distribute, and share information. They are no longer a passive audience. Communication (and, therefore, the transmission of information) is no longer perceived only as something from one to many, but designed by the process of many to many. Spyer (2007, p. 23) explains the concept:

> The Internet is a different media from the others because it enables the simultaneous and two-way communication between several people. … the phone conversation (1), (is) characterized by two-way communication between two or few people. TV and other means of dissemination (2) reach thousands of spectators, but the transmission has only one way, the transmitter "speaks" and receivers "listen." With the World Wide Web (3) groups can chat using applications such as message boards, mailing lists or chat rooms.

This is a simple summary of the evolution in communication processes. It also shows how information acquires a new level of importance in a networked society (Castells, 2002). Theoretically, there are no more boundaries of time and space regarding information (Levy, 1996). Information in Japan, Brazil, or Mexico can be accessed by anyone, anytime, and anywhere. Information circulates in an instantaneous and independent way and is also available to anyone who wants to access it. Further, it is free of charge (at least apparently). The free economy (Anderson, 2009) implies the feeling that free information is inherent in the virtual environment. Part of this preconceived concept is justified by Anderson (2009, p. 95) as a legacy of hacker culture that is based on seven principles, the most important of which is that all information should be free.

This context creates an environment full of supplies and demands on free content in which users can choose what is (or is not) relevant to them and contribute to its circulation. These actions are not a privilege of some people or specific markets. It is an efficient distribution system that meets the demand of various sectors of the global economy.

However, the aforementioned content is not something random or ordinary. Only relevant content can provide to or foster knowledge. This scenario creates a paradox in the information society: When the details are common or ordinary, they "want" to be free. On

the other hand, when information is more exclusive, it becomes valuable and people are willing to pay for it (Anderson, 2009).

This paradox and the crises of current models for information and knowledge management promoted projects that focused on collective intelligence (Lévy, 1998), a distributed intelligence constantly reviewed and provided by the effective mobilization of skills. The collective intelligence considers that anyone can contribute in any subject, thereby increasing value to the network. The value is not only profitable; it can be social or cultural and influence the online and offline environments.

These issues lead to other concepts: social capital and public space. Social capital may be conceptualized as a group-level attribute that reflects the character of the social relationships within the collective, and it is used as a basis to explain collective behavior.

Coleman (1990) favors a collective good view of the social capital and defines it as a relational aspect of a social structure whose main function is to facilitate actions for those individuals who are within this structure. Similarly, Bourdieu (1986) regards social capital as an aggregate of the actual or potential resources that are provided to members of a social group by a network of relations.

Social capital develops in a social system because closure, shared history, goal interdependence, and frequent interaction nurture a collective orientation. As a result, individual members' access to resources is facilitated due to information connectedness, norms of reciprocity, and expectations of pro-social behavior. Conversely, anti-social behavior is visible, monitored, and eventually sanctioned (Faraj & Wasko, 2001, pp. 15-16).

The digital environment implies interaction and relationships, and goes beyond sharing information or participation. Because of this, social capital became an inherent practice of digital culture and provided changes in the public space.

Habermas (1984) conceptualizes public space as a place of free debate between citizens in a universal and democratic way. Habermas (1984) also believes that, through this sphere, people are able to guide social actions—not by any internal or external coercive imposition, but as a democratic consensus provided by the rationality of actions and arguments. However, the public sphere should be an open forum for debate in which people can have equal access to arguments not influenced by power relations, dependence, authority, or social hierarchy. With the advent of the Internet, this space has changed and even has been extended. "The price of the positive increase of egalitarianism, with which the Internet offers to us, is the decentralization of access" (Habermas, 2006, p.3).

The access, dissemination and decentralization of information provides to the audience an alternative way to communicate, produce social capital, and amplify the public sphere. The power of auto-communication, conceptualized by Castells (2002, 2009), also interfered in journalism and caused newsrooms to redraw their boundaries in order

to survive. Thus, citizen journalism was one of the answers to solve this "problem."

Data-driven journalism, Crowdsourcing, and Crowdfunding: A Brazilian View

Digital tools allow anyone to make a comment, a review, or even a video and distribute it. It does not matter if you are an expert in a particular subject or if you are a regular user: Everyone can create media. Media companies also noticed that, as explained by Brambilla (2010, p. 125):

> Every citizen is a reporter. With this slogan, the South Korean news OhmyNews was designed in February 2000 as a watershed in digital journalism. The breaking of the journalist paradigm as "keeper of the place of speech" offered to the lay citizen (no journalism knowledge) all journalistic gear to give approval to its history: writing with editors in Seoul to ascertain information from the whole world and the endorsement a press mark transform a simple report of the accident at the corner journalistic fact.

Also known as participatory, collaborative, or open source journalism, within citizen journalism the audience participates in the production of news and has an active role in collecting, analyzing, writing, and dissemination information—such functions were previously restricted to the media. In this case, the news is no longer the end, but the starting point of the communication role—promoting discussions, debates, and interactions (Gillmor, 2004).

Citizen journalism is an important tool that promotes the reconfiguration of the public sphere because the media is no longer an instrument of private companies to stimulate public debate (Almeida, 1998; Castells, 2002, 2009). It invites the audience to interact in social debates. It also considers users, institutions, and public data as possible sources of news and articles; in other words, crowdsourcing. Crowdsourcing is outsourcing particular tasks to large, undefined groups of people to develop a new technology, process, or theory, or to analyze particular situations involving a large amount of data analysis. Other tasks may be crowdsourced and included in journalism.

According to Trässel (2010), this process (crowdsourcing) is not new in journalism. Readers have always sent letters, photos, and messages to the newsroom. However, digital platforms amplified the audience's participation in online and offline media as consequence of computer networks, changes in communication processes, and the file-sharing culture. In this new era, those involved in open source journalism may or may not be journalists, which can be another problem for journalism.

Holanda (2007) states that it is a complex situation and demands a critical analysis that involves an ethical point of view and either a reminder to the newspaper's commitments to the public and the advertisers since everyone can participate in the formulation of the news. In order to avoid it, media companies have to define the boundaries that will guide the audience's collaboration in newsrooms. Trässel (2010) insists that audience

participation is a constituent factor of data-driven journalism and the journalists should know to engage this audience.

In order to engage the audience, journalists (and news media) should be more than gatekeepers; they must be gatewatchers. It means that they have to be content curators, using digital and human curation to attend to the public interest.

In an attempt to provide a news media environment structured for audience participation, media companies have developed different projects. O *Estado de S. Paulo*,[4] a Brazilian newspaper, publishes photos of readers in its printed version. Another journalistic project, VC Reporter,[5] allows the users to send photos, videos, and texts through digital platforms.

There were also projects that used collaborative platforms to obtain information for important issues, such as the Brazilian initiative SP + Clean[6] and the iReport project [7] (CNN, in the United States). The first project began in April 2012 and its goal was to report all of the problems related to irregular waste disposal in São Paulo. In order to do so, both journalists and the audience took part in the project. The professionals wrote articles about this issue. The audience, on the other hand, helped with a specific part of the webpage entitled Mapa do Lixo (Map of Trash).[8] In this interactive map, the audience could show parts of the city where there was improper waste disposal in three steps. They provide the location and the address (through a specific search engine, so they can identify the location on the map and "pin" it); register it (considering some information such as the name, comment, and the picture in the place that was initially indicated); and send the information. Through this map, the audience helped to identify more than 2,000 points of irregular waste disposal.

iReport, in turn, invites the audience to participate in stories. The webpage presents the guidelines and, after completing a registration process, users can tell their stories by making statements about the main issue. However, this is not the only form of participation. After registering, the audience can interact with each other, contributing in other articles or simply talking about issues of common interest.

However, all of these collaborative journalistic projects belong to powerful media companies. It means that they follow already-established editorial guidelines and have boundaries to the audience's participation.

There is, therefore, an alternative way to conduct an independent journalistic project that is focused on the public interest and without any advertisers' interference: crowdfunding.

Crowdfunding is the practice of funding a project by raising monetary contributors from among a large number of people, typically via the Internet[9]. This practice provides financial support to many projects, including those in journalism. According Startupi[10], Kickstarter, a global crowdfunding platform, received $480 million for projects in 2013, which signifies an increase of 50% over 2012. Catarse (2014), a Brazilian crowdfunding platform, generated R$7.6 million ($2.9 million)[11] in 2013.

In Brazil, one of the few projects that achieved the parameters listed above was Arquitetura da Gentrificação (Architecture of Gentrification).[12] In order to understand this project, it is necessary to comprehend the impact of crowdsourcing and crowdfunding in Brazilian projects and how citizen and data-driven journalism works in Brazil.

Arquitetura da Gentrificação: A case study

Arquitetura da Gentrificação (AG) is an independent journalism project held in partnership with NGO Repórter Brasil[13] and it has two phases:

AG1: journalistic research on the social sanitary processes in public areas in downtown São Paulo.

AG 2: a specific investigative report based on a document signed by São Paulo city and a private bank for the revitalization of Vale do Anhangabaú, located in downtown São Paulo.

According to Stake (2008), there are three types of case studies, which are categorized by purpose: (1) an intrinsic case study is undertaken because of an intrinsic interest in the particular case; (2) an instrumental case study is analyzed to provide insight into an issue; (3) the collective case study helps to investigate a phenomenon or general condition. This research employs an intrinsic interest in a particular case and it was not so much a methodological choice as it is a choice of what is to be studied (Stake, 2008).

The object of the first stage is explained below:

> Architecture of Gentrification (AG) is a research project … on social sanitization measures adopted during the last two municipal administrations of São Paulo (2005-2012) in the downtown area. Our main research focus is to understand the relation between government and private companies in the construction sector and real estate.
> Through a series of news dealing with different aspects of the same theme, the AG intends to present an overview in order to explain how the gentrification process works, what are its actors, what are the impacts and possible forms of resistance in civilian society. This is a research project with a specific focus, both thematic and temporal, and that has a beginning, middle and end.[14]

Although the initial goal was to investigate only the last two municipal administrations, during the investigation for the project, journalists decided to extend the scope to the current administration of São Paulo city.

The second period of the project had different goals, although the center of São Paulo remained a subject of debate:

> The "Privatization Street" (or AG2) is the second step of the Gentrification Architecture project in partnership with Reporter Brazil. It is a journalistic investigation initiated in December 2013 and completed in December 2014 in order to unravel the processes behind São Paulo city hall's plan to "retrain" the center of the city, specifically the Anhangabaú Valley and surroundingareas. The rehabilitation plans are placed in the context of the "Center, Open Dialogue" project, from the Municipal Department of Urban Development (SMDU). Over a year of research, the report identified that the Itaú Bank, presented by the city as a financier of the project, did not only pay for it. The financial institution acted with autonomy and leadership within the municipal administration, offering public management tools, devising and setting new uses of public space, looking to give this a distinctly commercial character, disregarding therefore vulnerable populations that historically occupy the downtown São Paulo.[15]

In order to understand these stages, the official pages of the project were analyzed over three months, from October to December 2014. NGO Reporter Brazil hosted both webpages. Using Habermas' public sphere as a framework, this research considered journalistic processes (data-driven journalism), digital platforms used in the project (sites and social networks), crowdsourcing and crowdfunding in order to verify if they contributed to participation and public debate in São Paulo.

In addition, a telephone interview was held on December 8, 2014 with journalist Sabrina Duran, author of the AG project, with the following objectives: to understand how journalistic investigation was conducted; to understand the choice of digital tools used in the project; to analyze the collaborative process of AG; and to understand the model of financial sustainability of the AG.

According to Berger (2011), interviews are used in social inquiry to discover information about past activities, motivations, thoughts, opinions and attitudes. Then, this data must be collected and transcribed into texts, so the researcher can establish a framework for data analysis and interpretation in order to understand the qualitative evidence (Lindlof & Taylor, 2011).

Therefore, AG was chosen and studied using the purposive sampling technique described as convenience sampling (Lindlof & Taylor, 2011). Each sample met the following themes: (1) a large amount of data and difficulty in adapting them to the traditional journalistic practices in the online environment; (2) investigative and independent journalism practices in the digital environment; (3) social media and online journalism in Brazil.

AG Project: Content Analyses

The idea for the project began in December 2012 when Sabrina Duran[16] returned from the United States. When she moved to U.S., she had to leave the apartment where she lived, and when she returned, she found it hard to get a new property in the same region

due to high rental prices and limited options in the downtown area.

> I wanted to understand if it was really a particular problem or if it was a problem of São Paulo city. Thus, in mid-2013, I wrote the project and presented it to Non-Governmental Organization Reporter Brazil, an institution specializing in journalistic research of a political and social nature.[17]

The investigative journalistic process involved in the project was different from traditional newsrooms. There were no deadlines, pre-defined guidelines, or specific sizes and formats for news presentation. The interview requests took weeks to be answered, if there even was an answer. The large amount of data also contributed to the report's size. It was a different project that required a different approach.

The article "Housing PPP: partnership between the state government of São Paulo and real estate capital threat to the middle class,"[18] posted on December 6, 2013 and updated on December 12, 2013, is an example of that approach. It comprises 11 chapters and took five months to be investigated. The report has texts, a video, nine images (including graphics and other types of illustration), 16 pictures, and three audio files.

In order to prevent overloading of the webpage, the audience can download a PDF file with all the content. Besides this PDF file, there are hyperlinks to access all the documents and interviews done during the investigation, as well as an index (hyperlinks) to access each chapter.

Therefore, users could collaborate and interact by using social media (Twitter and Google+) and hyperlinks provided by the authors in the texts. Due to the complexity of the matter investigated and portrayed in the article, both authors provided hyperlinks that could help users to understand the issue as well as check out other points of view on the subject. Thus, the user was not limited to data provided by the project.

> We chose this special approach because we believe that relationships take time to build. ... There were long periods of research due to the complexity of project and because government hold on information. In order to do a specific article, for example, we sent 14 interview requests to the city hall's press office. However, the response came only after the intervention of the NGO Article 19, which advocates press rights to access information.[19]

Another aspect highlighted by the journalists is that the project challenged the specificities of online journalism.

> We did an investigative study that led us to extensive and critical content. Unlike some Internet-related parameters such as real-time information, short texts, and easy access, the project that we made goes against what is commercially acceptable. However, our target was never to be a webpage with

> a large number of visitors or repercussions; we want to present a complex issue and unravel processes for citizens to take long-term decisions. We never wanted to bring short-term changes.[20]

These complex issues exist in both phases of the project, and that was the reason why the AG team had to protect themselves from potential lawsuits. To prevent these problems, they submitted all the reports to lawyers, architects, the NGO Article 19,[21] and an editorial board. The reports were published only after consultation with all involved.

In addition, Sabrina Duran used another resource to protect them from potential lawsuits and expose the project in a collaborative context of free access to information: all files used in the preparation of reports were available to download. Thus, interested parties can access the full documents and audio and video files used to make the reports.

In order to facilitate the access and sharing of information, AG has social media accounts with Facebook, Twitter, YouTube, and Google+. In addition, the first phase of the project also has a blog.

Table 1. Arquitetura da Gentrificação (AG1) – webpages and content

Webpage	Content
Sobre (About us)	General information about the project
Blog	Open-space calculation of texts on the site's main theme (gentrification). General users write it.
Referências (References)	Documents, webpages, books and videos used in the articles.
Lista de Contatos (Contact list)	Press office of government agencies and defense associations to human rights addresses.
Apoiadores (Supporters)	A list of all who provided financial support to the project
Contato (Contact)*	An online platform to send messages to AG

* Users can also send emails to the project team in some of the articles.

According to Duranvi, these tools help in the propagation of the articles. Because the reports take so much time to be produced and because social media accounts should not remain inactive, Duran also shares content from other institutions, mostly academic institutions, through these accounts. The journalist also mentioned that there is not a standard for post content or frequency. She only tries to post once a day on the project's official Twitter and Facebook accounts and in her personal accounts.[22]

Although the two phases of the project have similarities, such as journalistic investigation processes, an open access policy, and financial support via crowdfunding, each phase had particular aspects to be considered in the content analysis.

Phase 1: Arquitetura da Gentrificação (AG)

AG began in early 2013. All the investigations resulted in a website, hosted on the

NGO Reporter Brazil webpage, divided into six parts:[23] Articles, Blog, References, Contact List, Supporters, and Contact (see Table 1). All of them are very interactive and collaborative, so users can provide data and spread information about AG project.

The report's labels were defined according to the main issue subject and were divided into "All," "Sanitation," "Resistance," "Occupations" and "Crossed Data" (see Table 2). They were selected according to the most recurring themes encountered in the project.

Table 2. Report content – classification

Classification	Total of reports
Todas (All)	14
Higienização (Sanitation)	7
Resistência (Resistance)	9
Ocupações (Occupations)	1
Dados cruzados (Crossed data)	7

However, most of the reports could be labeled by two or more classifications. The text "Residents of Favela do Moinho denounce police excesses,"[24] i.e., posted on February 26, 2014, has the labels "Sanitation" and "Resistance."

Over more than a year, AG produced 14 reports with photos, illustrations, video, and/or audio files (see Table 3). All of them provided to users important tools to understand the issues and spread the information in digital environment.

Table 3. Media used in the reports

Media	Total insertions	Average
Photos	41	2.92
Illustrations (maps, static graphics, cartoons, etc.)	12	0.85
Videos	15	1.07
Interactive graphics	4	0.28
Audio	12	0.85

All material have sharing icons through social media (Twitter and Google+, located on the top of the page), and videos can be shared via YouTube.

The reports contain tags at the bottom of the webpage to identify their main issues. There were 78 tags used in AG, an average of 5.57 for each report. From this total, only 15 tags were in more than one report, which includes the tags "Favela do Moinho" (three times) and "PPP de habitação do centro"[25] (four times).

There were no boundaries such as design and size of texts in order to present

> all the issues investigated. We used in the reports the amount of text, video, graphics, photos, and audio needed to tell the stories to the audience. Only in this way could we provide to the content the necessary resources for the narrative could be told the best way as possible.[26]

"Right to the City: report brings suggestions of public policies against gentrification" [27] published on January 14, 2014, for example, shows the possibilities in digital platforms used by AG team. The text was written by Sabrina Duran and featured graphics and layout by Luana Bola, a collaborator. In this report webpage, at first, viewers can see the title and a summary of the main subject, which explains what is it all about. Also, the webpage has a hyperlink to download the report in PDF format as well as a text that emphasizes that the material is free for reproduction, distribution, and printing. Therefore, all sources used in the research are listed and available on each page of the PDF file.

According to Downey and Fenton (2003), alternative media and new media can help create a "counter-public sphere" and encourages citizens to "analyze how shared democratic values and identification as democratic citizens are achieved and maintained" (p. 191).

However, digital media was not only a platform used to share information. It was also an important tool for data analysis. Half of the reports at this phase were based on data-driven journalism parameters using human and digital curation to display content obtained after their research.

The article "The contractor bench"[28] is an example of the curatorial process conducted by the AG team. It was published on September 18, 2013, and highlighted an interactive infographic that shows the connections between the buildings in São Paulo, the contracts with these companies, the money donations made by them, and their relations to politicians. The team set up the infographic according to information presented in online spreadsheets. All the documents and spreadsheets used to design the infographic are available for download or online consultation, with a team invitation for users to use those data to do their own analysis.

Although digital platforms have importance to the project, the human factor was not forgotten. In order to humanize the content, the AG project tried to stimulate its audience to collaborate through testimonials from residents and photographic records. One of these initiatives was the development of a collaborative map for residents of Favela do Moinho.[29] Released on March 3, 2014, the map is still in Beta version. It takes only a simple registration (with login and password) for residents to be able to complain about problems in the favela.

Complaints are labeled as violation of the right to housing, lack of basic sanitation, or fire in the Moinho.[30] This choice is not random. According to Ministério das Cidades[31] (2012), the habitation deficit in São Paulo state is 1.320.000, which explains the high number of citizens living in precarious conditions in the city. In addition, Brazil occupies 112th position in a ranking of 200 countries in global sanitation.[32] This means that only

48.1% of Brazilians have sewage disposal service and only 37.5% of the country's sewage is treated.[33] The third item is justified because Favela do Moinho has a high rate of fires compared to other favelas in São Paulo. It also has one more category: "historical registry of Moinho,"[34] whose objective is the registration of residents in order to show the human side of the area's living conditions.

However, the tool is not as effective as it was intended to be. There was low compliance by the locals. According to Duran,[35] technological ignorance and lack of technical capacity on the part of the residents were the main reasons for that.

Phase 2: Privatização da Rua (AG2)[36]

Phase two of the project was called Privatization of the Streets.[37] The idea for its realization came at the end of the first phase of AG, when a source told journalist Duran about a donation agreement signed by the mayor of São Paulo and Itaú, a private bank in Brazil.

This document allowed the private bank to be in charge of the revitalization process in Vale do Anhangabaú in downtown São Paulo. The tip led to a journalistic investigation that took one year (December 2013 to December 2014) and resulted in a website and a documentary, which was expected to be released in early 2015.

Although the issue of gentrification is still present in this phase of the project, there are differences regarding the focus of reports. Thus, it is easy to foresee changes to the layout of the webpage and information architecture.

In order to do AG2, the team consulted over 30 sources and 40 documents, such as contracts, meeting records, and bidding processes. As with AG1, all the material used during the investigation is available for consultation and downloading. The reports were divided into: Timeline, Project, Vale do Anhangabaú, Transparency, Open Data, and Documentary[38] (See Table 4).

Table 4. Privarização da rua (AG2) – webpages and content

Webpage	Content
Linha do tempo (Timeline)	An interactive timeline about the main issue of the project (AG2).
Projeto (Project)	General information about the project
Vale do Anhangabaú (Anhangabaú Valley)	Explains what Anhangabaú Valley is, where it is, and what its importance to the city is.
Transparência (Transparency)*	Refers to the importance of the law in open-access information.
Dados abertos (Open data)	Documents, webpages, books, and videos used in the articles.
Documentário (Documentary)	Documentary produced about the same issue.

* On November 18, 2011 law no. 12527 was enacted. It regulates access to information in Brazil. AG2 tried to reiterate the right of the Brazilian press, using this part of the project to emphasize this right. Thus, on this webpage, users can have access to all the analysis done by the AG team, such as interview requests, PDF files of requests, and complaints made during the investigation.

In AG 2, the texts are shorter and do not have tags or release dates. There were six reports, two photos, and 12 videos that helped to understand how the process of revitalizing Vale do Anhangabaú was determined.

The practice of open access remains in this phase of the project. The AG2 team developed a specific webpage where the audience can access the files used during the journalistic investigation and in the production of the reports. The files were divided into sections called Public Documents, Audio, Video, Images, Transcripts (from the interviews), and Complementary Bibliography[39], and these were available in the form of hyperlinks. There, audiences can access important files from the project, such as the Donation Agreement, which inspired the project, and a video in which journalist Sabrina Duran was prohibited from filming a public hearing.[40]

AG2 also developed a timeline[41] in order to help the audience understand the facts that led to São Paulo City Hall's decision. Through this timeline, the audience can access texts and images that explain the process investigated by the professionals.

AG: Business Model

The project was supported via crowdfunding. The platform chosen was Catarse[42], a Brazilian platform. The AG1 aimed to reach R$18,000. It reached R$20,117 and had 316 supporters. The AG2 tried to reach R$34,635; it obtained R$36,937 and had the support of 194 people. The financial difference between the first and second phases was a particular donation of R$7,000 made by a foundation.[43]

Crowdfunding was the only choice the AG team had to obtain the financial support for the project. However, the practice was not enough to support it. The absence of typical features of traditional newspapers, such as ad sales, led the team to improvise in order

to keep the project alive. Thus, the collaborative process was once again the resource used by the team responsible for the project.

> The first phase of the project yielded approximately R$6,000 per employee. If we divide R$6,000 by 365 days, we will have R$16 per day to live in a city with one of the most expensive costs of living in South America. Whereas work includes Saturdays, Sundays, and holidays, it is quite a negligible payment.[44]

This statement can be supported by some data presented by Departamento Intersindical de Estatística e Estudos Socioeconômicos (Dieese),[45] a Brazilian research institution. São Paulo is one of the most expensive cities in Brazil. In 2014 it had a cost of living rate increase of 6.18%, and the costs that contributed to this were education, personal expenses, superficial expenses, food, and housing.

Conclusion

The reason why innovation often seems to be so difficult for established newsrooms is that, though they employ highly capable people, they are working within organizational structures whose processes and priorities were not designed for the task at hand.

Creating an innovative newsroom environment means looking within the existing value network and beyond traditional business models to discover new experiences for audiences, then realigning your resources, processes, and priorities to embrace these disruptions.

While there is no single panacea to replace the traditional business models that news organizations relied upon for more than a century, these recommendations taken in aggregate provide a framework for an emergent strategy to take hold (focus on the job to be done). Innovation requires courageous leadership, a clearly articulated vision, and strength to stay the course. Thus, digital platforms are important tools that provide opportunities for collaboration, data collection, and project financing, including in journalism.

Arquitetura da Gentrificação found problematic issues in Brazilian society that were (partially) ignored by society and the press. The project used data analysis and interviews to develop an independent journalistic media.

The AG team has been successful in its investigation and reports, but that does not mean that the path was easy. The power relations that limit the journalistic processes can sometimes be helpful during an investigation. Therefore, there are some issues that need to be considered: if the AG project was supported by a well-known newspaper company, there would be more resources, including financial resources. The journalists could work faster and the material would have more visibility. On the other hand, some of the issues could be censored or abandoned, as they might interfere in delicate matters within these companies, such as advertisers and politicians.

Crowdfunding guaranteed this supposed freedom for AG despite the fact that the financial resources weren't enough to support all the project's needs. There was unlimited space and possibilities for the journalistic content. There was no deadline. There was no commercial pressure. Moreover, AG was developed by independent journalists. The investigation process was slow, it took weeks to obtain access to information, and it was not always easy. Usually NGOs had to interfere in order to access data or get interviews.

> Using crowdsourcing, crowdfunding and data driven journalism, the AG project created a public forum and facilitated discourse, reinvigorating the liberal ideal of the public sphere as defined by Habermas (1984,2006).

The digital platform was another important point for the project. The reports required long texts with a large amount of information, and the digital convergence provided by the online environment enabled an environment in which that information could be well assimilated and distributed over the web. Thus, the project meets the requirements of collaboration, sharing, and engagement present in the information society, as explained by Sabrina Duran:

> People need to understand that information is an intangible asset. It's going to be difficult to convince people that this information will be important to them someday. We brought the debate about gentrification to the streets. Before of AG, it was restricted to academic institutions. Our only regret is to deal with the lack of transparency of the government and "the culture of silence" in order to do all of this.[46]

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References

Almeida, J. (1998). Mídia, opinião pública ativa e esfera pública democrática. *IV Congreso Latinoamericano de Ciencias de la Comunicacións*(IV ALAIC). Retrieved from http://www.eca.usp.br/alaic/Congreso1999/3gt/Jorge%20Almeida.rtf

Anderson, C. (2009). *Free*. Rio de Janeiro, Brazil: Editora Campos.

Arquitetura da Gentrificação 2. A privatização da rua. Retrived November 14, 2014 from http://reporterbrasil.org.br/privatizacaodarua/.

Barthes, R. (1998) O efeito de realidade. In: *O Rumor da Língua*. São Paulo: Brasiliense.

Berger, A. A. (2011). *Media and communication research methods*. Thousand Oaks, CA: Sage.

Bourdieu, P. (1986). *The forms of capital*. Retrieved from https://www.marxists.org/reference/subject/philosophy/works/fr/bourdieu-forms-capital.htm

Brambilla, A. (2010) *Jornalismo colaborativo. In: Novos jornalistas* – para entender o jornalismo hoje. Org. Gilmar Renato da Silva. Retrieved from http://paraentenderojornalismohoje.blogspot.com/

Castells, M. (2002) *A sociedade em rede: a era da informação – economia, sociedade e cultura*. São Paulo, Brazil: Paz e Terra.

Castells, M. (2009) *Comunicación y poder*. Madrid, Spain: Alianza.

Catarse. (2015). Tire seus projetos do papel! Retrieved December 9, 2014 from http://catarse.me/pt/projects.

CNN. (2012). *iReport*. Retrieved November 15, 2014 from http://ireport.cnn.com/.

Coleman, J. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.

comScore. (2014). *Estudo da comScore: Brazil Digital Future in Focus 2014 está disponível*. Retrieved November 15, 2014 from https://www.comscore.com/por/Insights/Press-Releases/2014/5/Estudo-da-comScore-Brazil-Digital-Future-in-Focus-2014-esta-disponivel.

Dieese. (2014). *Índice do custo de vida*. Retrieved December 9, 2014 from http://www.dieese.org.br/analiseicv/icv.html.

Downey, J. & Fenton, N. (2003). New Media, counter publicity and the public sphere. *New Media & Society* 5, 185-202.

Eco, U. (2002) *Lector in fabula*. A cooperação interpretativa nos textos narrativos. 2a ed. São Paulo, Brazil: Perspectiva.

Faraj, S., & Wasko, M. M. (2001). The web of knowledge: An investigation of knowledge exchange in networks of practice, MIT–Open Source Research Community. Retrieved from http://opensource.mit.edu/papers/Farajwasko.pdf

G1. (2014). *Universalizar saneamento básico em SP exige R$ 35 bilhões, diz estudo*. Retrieved December 10, 2014 from http://g1.globo.com/sao-paulo/noticia/2014/02/universalizar-saneamento-

basico-em-sp-exige-r-35-bilhoes-diz-estudo.html.

Gillmor, D. (2004). We the media: Grassroots journalism, by the people, for the people. Retrieved from http://www.oreilly.com/catalog/wemedia/book/index.csp.

Habermas, J. (1984). *Mudança estrutural da esfera pública: Investigações quanto a uma categoria da sociedade burguesa*. Rio de Janeiro, Brazil: Tempo Brasileiro.

Habermas, J. (2006). *O caos na esfera pública. Folha de S. Paulo*, disponível em: http://www.lainsignia.org/2006/septiembre/cul_003.htm [consultado a 02 de Maio 2009].

Holanda, A. (2007) *Estratégias de abertura: O jornalismo de fonte aberta dos casos Indymedia, CMI, Slashdot, Agoravox, Wikinotícias e Wikinews*. UFBA.

Kotler, P., Kartajaya, H., & Setiawan, I. (2010) *Marketing 3.0: As forças que estão definindo o novo marketing centrado no ser humano*. Rio de Janeiro, Brazil: Elsevier

Lévy, P. (1996) *O que é o virtual?* Rio de Janeiro, Brazil: 34.

Lévy, P. (1998) *A inteligência coletiva*. São Paulo, Brazil: Loyola.

Lindlof, T. R. & Taylor, B. C. (2011). *Qualitative communication research methods*. Thousands Oaks, CA: Sage.

Ministério das Cidades. (2012). Relatório de Avaliação Plano Plurianual – Exercício 2012 – Ano Base 2011. Retrieved November 15, 2014 from www.cidades.gov.br.

Nilsen. (2012). *Buzz in the Blogosphere: millions more bloggers and blog readers.* Retrieved November 15, 2014 from http://www.nielsen.com/us/en/insights/news/2012/buzz-in-the-blogosphere-millions-more-bloggers-and-blog-readers.html.

Primo, A., & Recuero, R. (2006). A terceira geração da hipertextualidade: Cooperação e conflito na escrita coletiva de hipertextos com links multidirecionais. In: *Líbero*, ano IX, n. 17.

Spyer, J. (2007) *Conectado*. O que a internet fez com você e o que você pode fazer com ela. Rio de Janeiro, Brazil: Jorge Zahar.

Startupi. (2014). KickStarter mostra que crowdfunding está em alta – inclusive no Brasil. Retrieved November 15, 2014 from http://startupi.com.br/2014/01/crowdfunding-ainda-cresce-kickstarter-arrecadou-us-480-milhoes-em-2013/.

Terra. (2012) *VC Repórter*. Retrieved November 15, 2014 from http://vcreporter.terra.com.br/ .

Trässel, M. (2010) A apuração distribuída como técnica de webjornalismo participativo. *Produção e Colaboração no Jornalismo Digital*. Editora Insular.

Trässel, M. (2014) Jornalismo guiado por dados: Aproximações entre a identidade jornalística e a cultura hacker. *Estudos em Jornalismo e Mídia*, 11(1). Retrieved from https://periodicos.ufsc.br/index.php/jornalismo/article/view/1984-6924

Trata Brasil. (2014). *Ranking do Saneamento*. Retrieved November 15, 2014 from http://www.tratabrasil.org.br/ranking-do-saneamento.

Wikipedia. (2014). *Crowdfunding.* Retrieved November 15, 2014 from http://en.wikipedia.org/wiki/Crowdfunding.

End notes

1. Available at: http://www.nielsen.com/us/en/insights/news/2012/buzz-in-the-blogosphere-millions-more-bloggers-and-blog-readers.html. Accessed on: November 15, 2014.

2. Available at: https://www.comscore.com/por/Insights/Press-Releases/2014/5/Estudo-da-comScore-Brazil-Digital-Future-in-Focus-2014-esta-disponivel. Accessed on: November 15, 2014.

3. Author's translation from a Portuguese title: Gentrification Estructure. Project available at: http://reporterbrasil.org.br/gentrificacao/. Accessed on: October 10, 2014.

4. Available at: http://www.estadao.com.br/. Accessed on: November 15, 2014.

5. Available at: http://vcreporter.terra.com.br/. Accessed on: November 15, 2014.

6. Author's translation from original Project SP + Limpa. Available at: http://g1.globo.com/sao-paulo/sao-paulo-mais-limpa/index.html. Accessed on: November 15, 2014.

7. Available at: http://ireport.cnn.com/. Access on: November 15, 2014.

8. Author's translation from original title. Available at: http://g1.globo.com/sao-paulo/sao-paulo-mais-limpa/index.html. Accessed on: November 15, 2014.

9. Available at: http://en.wikipedia.org/wiki/Crowdfunding. Accessed on: October 10, 2014.

10. Available at: http://startupi.com.br/2014/01/crowdfunding-ainda-cresce-kickstarter-arrecadou-us-480-milhoes-em-2013/. Access on: November 15, 2014.

11. Author's calculation based in Brazilian exchange rate. Available at: http://economia.uol.com.br/cotacoes/cambio/dolar-comercial-estados-unidos/. Accessed on: December 11, 2014.

12. Author's translation from a Portuguese title. Project available at: http://reporterbrasil.org.br/gentrificacao/. Accessed on: October 10, 2014.

13. Reporter Brazil was founded in 2001 by journalists, social scientists and educators in order to promote reflection and action on the violation of the fundamental rights of people and workers in Brazil. Because of its work, it has become one of the most important sources of information on slave labor in the country. Reports, journalistic investigations, research and educational methodologies have been used by the government leaders, the business sector and civil society as instruments to combat modern-day slavery, a problem that affects thousands of people. Available at: http://reporterbrasil.org.br/quem-somos/. Accessed on: October 10, 2014.

14. The original citation: O Arquitetura da Gentrificação (AG) é um projeto de investigação da jornalista Sabrina Duran realizado em parceria com a Repórter Brasil sobre as medidas de higienização social adotadas durante as duas últimas administrações municipais de São Paulo (2005-2012) no centro da capital. Como foco principal da investigação estão as relações entre poder público e empresas privadas do setor de construção civil e ramo imobiliário.
Por meio de um conjunto de reportagens que abordam diferentes faces do mesmo tema, o AG

pretende apresentar um panorama capaz de explicar como se dá o processo de gentrificação, seus atores, impactos causados e possíveis formas de resistência da sociedade civil.
Trata-se de um projeto de investigação com um recorte específico, tanto temático quanto temporal, e que tem início, meio e fim. Available at: http://reporterbrasil.org.br/gentrificacao/sobre/. Accessed on: October 10, 2014.

[15.] The original citation: O "Privatização da Rua" (ou AG2) é a segunda fase do projeto Arquitetura da Gentrificação, feito em parceria com a Repórter Brasil.
Trata-se de uma investigação jornalística iniciada em dezembro de 2013 e concluída em dezembro de 2014 com o objetivo de destrinchar os processos por trás do plano da prefeitura de São Paulo de "requalificar" o centro da cidade, especificamente o Vale do Anhangabaú e adjacências. Os planos de requalificação estão inseridos no contexto do projeto "Centro, Diálogo Aberto"," da Secretaria Municipal de Desenvolvimento Urbano (SMDU).
Ao longo de um ano de investigação, a reportagem identificou que o banco Itaú, apresentado pela prefeitura como financiador no projeto, não foi apenas quem pagou por ele. A instituição financeira atuou com autonomia e protagonismo no âmbito da administração municipal, dispondo de ferramentas públicas de gestão, idealizando e definindo novos usos do espaço público, procurando dar a este um caráter marcadamente comercial, desconsiderando, portanto, as populações vulneráveis que historicamente ocupam o centro de São Paulo. Available at: http://reporterbrasil.org.br/privatizacaodarua/s.php?page=projeto. Accessed on: November 15, 2014.

[16.] From an interview by telephone with the author on December 8, 2014. Sabrina Duran is a freelance journalist since 2009. Her current focus is on AG project. One of his main collaborators is Fabricio Muriana, publicist and philosopher, who joined the project in August 2013. Besides them, there are three fixed employees and five sporadic employees, including some of them work in the NGO Reporter Brazil.

[17.] From an interview by telephone with the author on December 8, 2014.

[18.] Author's translation from Portuguese title: "PPP de habitação: parceria entre governo estadual de SP e capital imobiliário ameaça até a classe média"." Available at: http://reporterbrasil.org.br/gentrificacao/ppp-de-habitacao-parceria-entre-governo-estadual-de-sp-e-capital-imobiliario-ameaca-ate-classe-media/. Accessed on: October 10, 2014.

[19.] From an interview by telephone with the author.

[20.] From an interview by telephone with the author.

[21.] Artigo 19 is a NGO, which works for all anywhere can express themselves freely, to access information and enjoy freedom of the press. They understand the freedom of expression as three things: Freedom of expression is the right to rule; Freedom of speech is freedom of the press; Freedom of expression is the right to know. Original statement available at: http://artigo19.org/blog/quem-somos/. Accessed on: December 9, 2014.

[22.] From an interview by telephone with the author.

[23.] Author's translation from Portuguese terms: Reportagens, Blog, Referências, Lista de Contatos, Apoiadores, Contato.

[24.] Author's translation from Portuguese title: Residentes da Favela do Moinho denunciam excessos da polícia. Available at: http://reporterbrasil.org.br/gentrificacao/moradores-da-favela-do-moinho-denunciam-excessos-da-policia/. Accessed on: October 10, 2014.

[25.] PPP de habitação do centro is a public-private partnership for the construction of new buildings in the center area of São Paulo city. Available at: http://www.habitacao.sp.gov.br/casapaulista/

ppp_centro_sao_paulo.aspx. Accessed on: October 10, 2014.

[26.] From an interview by telephone with the author.

[27.] Author's translation from Portuguese title: Direito à cidade: reportagem traz sugestões de políticas públicas contra a gentrficiação"." Available at: http://reporterbrasil.org.br/gentrificacao/direito-a-cidade-reportagem-traz-sugestoes-de-politicas-publicas-contra-a-gentrificacao/. Accessed on: October 10, 2014.

[28.] Author's translation from Portuguese title: A bancada empreiteira. Available at: http://reporterbrasil.org.br/gentrificacao/a-bancada-empreiteira/. Accessed on: October 10, 2014.

[29.] Author's translation from Portuguese title: Mapa colaborativo denuncia violência contra moradores da Favela do Moinho. Available at: http://reporterbrasil.org.br/gentrificacao/mapa-colaborativo-denuncia-violencia-cometida-contra-moradores-da-favela-do-moinho/. Accessed on: October 10, 2014.

[30.] Author's translation from Portuguese terms: violação do direito à moradia; falta de saneamento básico; fogo no moinho. Available at: http://reporterbrasil.org.br/gentrificacao/mapa-colaborativo-denuncia-violencia-cometida-contra-moradores-da-favela-do-moinho/. Accessed on: October 10, 2014.

[31.] Available at: www.cidades.gov.br. Accessed on: December 10, 2014.

[32.] Available at: http://www.tratabrasil.org.br/ranking-do-saneamento. Accessed on: December 10, 2014.

[33.] Available at: http://g1.globo.com/sao-paulo/noticia/2014/02/universalizar-saneamento-basico-em-sp-exige-r-35-bilhoes-diz-estudo.html. Accessed on: December 10, 2014.

[34.] Author's translation from: registro histórico do Moinho. Available at: http://reporterbrasil.org.br/gentrificacao/mapa-colaborativo-denuncia-violencia-cometida-contra-moradores-da-favela-do-moinho/. Accessed on: October 10, 2014.

[35.] From an interview by telephone with the author.

[36.] Available at: http://reporterbrasil.org.br/privatizacaodarua/. Accessed on: November 15, 2014.

[37.] Author's translation from Portuguese title: Privatização da rua. Available at: http://reporterbrasil.org.br/privatizacaodarua/. Accessed on: November 15, 2014.

[38.] Author's translation from Portuguese titles: Linha do tempo, Projeto, Vale do Anhamgabaú, Transparência, Dados abertos, Documentário. Available at: http://reporterbrasil.org.br/privatizacaodarua/. Accessed on: November 15, 2014.

[39.] Author's translation from Portuguese titles: Documentos públicos, Áudios, Vídeos, Imagens, Transcrições, Bibliografia de apoio. Available at: http://reporterbrasil.org.br/privatizacaodarua/s.php?page=dadosabertos. Accessed on: December 1, 2014.

[40.] Available at: https://www.youtube.com/watch?v=wGReZgvDq3s&list=UU_F8X3SKXwkA7KHOGnAFtvw. Accessed on: December 1, 2014.

[41.] Available at: http://reporterbrasil.org.br/privatizacaodarua/. Accessed on: December 1, 2014.

[42.] Available at: http://catarse.me/pt/projects. Accessed on: December 9, 2014.

[43.] In dollars: The AG1 was aimed to obtain $ 6,844. It reached $ 7,649 and had 316 supporters. The

AG2 had a goal to get $ 13,169; obtained $ 14,044 and had the support of 194 people. The financial difference between the first and the second phase was the donation of $ 2,661 from a foundation. Author's calculation based in Brazilian exchange rate. Available at: http://economia.uol.com.br/cotacoes/cambio/dolar-comercial-estados-unidos/. Accessed on: December 11, 2014.

[44.] In dollars: The first phase of the project yielded approximately $ 2,281 per employee. If we divide that $ 2,281 per 365 days a year, would give $ 6 per day to live in one of the cities with the most expensive standard of living in South America. Author's calculation based in Brazilian exchange rate. Available at: http://economia.uol.com.br/cotacoes/cambio/dolar-comercial-estados-unidos/. Accessed on: December 11, 2014.

[45.] Available at: http://www.dieese.org.br/analiseicv/icv.html. Accessed on: December 9, 2014.

[46.] From an interview by telephone with the author.

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