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Table of Contents

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Article

Predicting Social Networking Site Use and Online Communication Practices among Adolescents: The Role of Access and Device Ownership

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Abstract: Given adolescents' heavy social media use, this study examined a number of predictors of adolescent social media use, as well as predictors of online communication practices. Using data collected from a national sample of 467 adolescents between the ages of 13 and 17, results indicate that demographics, technology access, and technology ownership are related to social media use and communication practices. Specifically, females log onto and use more constructive communication practices on Facebook compared to males. Additionally, adolescents who own smartphones engage in more constructive online communication practices than those who share regular cell phones or those who do not have access to a cell phone. Overall, results imply that ownership of mobile technologies, such as smartphones and iPads, may be more predictive of social networking site use and online communication practices than general ownership of technology.

Keywords: adolescents; cell phones; demographics; Facebook; Internet-capable mobile devices; online communication practices; predictors; social networking sites

Issue
This article is part of a regular issue of Media and Communication, edited by Professor Bradley Greenberg (Michigan State University, USA) and Professor Elisabeth Klaus (University of Salzburg, Austria).

1. Introduction

There is little question that adolescents are the leaders of a growing trend to use social media in high quantities and on a daily basis (Lenhart, 2009a; Lenhart, 2009b; Lenhart, Purcell, Smith, & Zickuhr, 2010; Madden et al., 2013). Recent studies examining adolescent Internet use have found that more than 90% of all 12–17 year-olds use the Internet and 73% of adolescent Internet users spend time on social networking sites, an increase of nearly 20% since 2006 (Lenhart et al., 2010). While use of other social networking sites is up from years past, a far smaller percentage of online adolescents (24%) use Twitter compared to sites like Facebook (Lenhart et al., 2013). Additionally, research by Beasley and Conway (2011) found that a majority (59%) of adolescents aged 8 to 17 check their Facebook profile page more than twice daily, compared to just 20% of adult users over the age of 18. Although a majority of the research referenced in this paper refers to research conducted in the United States, it must be noted that Facebook is international in scope and is popular among adolescents throughout the world (boyd & Ellison, 2008; Livingstone, 2008), becoming an important part of adolescents' daily lives, and changing the way that they communicate and interact with their friends and acquaintances (Whitlock, Powers, & Eckenrode, 2006).

Overall then, a large majority of adolescents are using social media, especially Facebook, in relatively high quantities and multiple times each day. Based on this research, it is clear that the percentage of users is growing as social media use becomes more ubiquitous

among adolescents. As a result, this study seeks to examine the predictors of social networking site use among adolescent users with a focus on the specific ways in which adolescents communicate and interact on these sites. We will utilize Uses and Gratifications as a framework for understanding how adolescents select and use communication technologies. Additionally, we will examine predictors of constructive and non-constructive communication, defined as communication practices in which the adolescent either creates the communication (constructive), such as by posting a new status update, or receives the communication (non-constructive), such as by reading a friend's wall post. Online communication has been cited as a mechanism for understanding the effects of social networking site use on adolescents (Valkenburg & Peter, 2008); therefore, it is important to understand demographic, access, and ownership predictors of such communication.

2. Social Networking Sites

2.1. Effects

With the growth in popularity of social media sites, multiple studies have explored the effects of social networking site use. For example, studies by Valkenburg and colleagues have demonstrated positive effects of social networking site use, such as helping adolescents explore their identity (Valkenburg & Peter, 2008), increasing connections with others (Valkenburg & Peter, 2008), and increasing users' self-esteem by increasing the number of relationships formed on the site and the number of comments received (Valkenburg, Peter, & Schouten, 2006). Finally, recent research demonstrates that adolescents themselves indicate that social networking site use is more likely to have a positive effect than a negative effect on their social and emotional lives (Common Sense Media, 2012). Conversely, research indicates that there are potential risks for users of social networking sites as well. Research has demonstrated that youth may self-disclose intimate information (Valkenburg & Peter, 2007) which is of particular concern, given that online self-disclosure is related to the posting of personally-identifying information (Christofides, Muise, & Desmarais, 2011). For example, research by Barbosa and colleagues (2013) found that, among European and Brazilian adolescents, a large number of individuals reported posting information such as their full name, a photo of their face, their school, and even their address. Additionally, Peter, Valkenburg, and Schouten (2006) found that early adolescents (ages 12 to 14) were more likely to contact and communicate with a stranger using social media when compared to older adolescents.

2.2. Use

While other forms of social media, such as Twitter, do allow users to create profiles with a great amount of information, Facebook provides perhaps the greatest opportunity for doing so. Recent reports have indicated that adolescents have begun to split their social networking time across a number of different sites, such as Facebook, Twitter, and Tumblr (Madden et al., 2013). It is important to note, however, that Facebook remains the most used social networking site for the majority of adolescents (Madden et al., 2013).

Overall, Facebook allows users to create and monitor a profile, controlling the personal information that others can see on their profiles. This is important, especially to adolescents, given the great significance that interpersonal relationships hold during this developmental stage. After all, during adolescence, children attempt to maintain close ties to similar others in an effort to deal with increasing separation from their parents (Lapsley, FitzGerald, Rice, & Jackson, 1989). Social media sites, such as Facebook, allow users to maintain relatively close ties to friends, family, and acquaintances, thereby alleviating the fear of losing relationships. Additionally, Facebook provides users with tools that allow them to change their profiles quickly and easily. Therefore, it is possible for Facebook users to post information that could allow them to explore their identity and connect with others, two positive effects of social media that have been identified in the literature (Goff, 2009; Valkenburg & Peter, 2008). It is also likely, however, that Facebook users can use the options available to post potentially sensitive information. Although social networking sites, such as Facebook, do have privacy protections available that are used by a growing majority of adolescent Facebook users (Lenhart & Madden, 2007; Patchin & Hinduja, 2010), there are still users whose profiles are available to the entire Facebook community.

3. Current Study

Given the mixed findings of both positive and negative effects of social media site use on children and adolescents, and with social network use reaching near ubiquity with adolescent users, it is important that researchers explore the ways in which adolescents are using the features of social networking sites as a way of communicating and interacting with their peers. After all, it is these online communication practices that are generally cited as the mechanism by which both positive and negative effects occur (Valkenburg & Peter, 2008). While there is a large and growing body of research on the effects of social media use among adolescents, less research has systematically looked at predictors of social media use among this age group, especially the ways teens communicate and interact online. Therefore, in the present study, we will first examine the pattern of relationships between adolescent demographics, access to technology, technology ownership, and overall social media usage. Next, these

predictors (demographics, access to technology, and technology ownership) will be used to examine specific Facebook posting and communication practices including constructive and non-constructive communication practices.

4. Predictors of Social Media Use

4.1. Ethnicity

There has been consistent evidence of race and ethnicity differences in overall media use over the years. Most recently, reports indicate significant differences in the amount of time youth ages 8 to 18 years old spend using media as a function of race (Hargittai, 2007; Rideout, Lauricella, & Wartella, 2011). While these numbers appear to exist for traditional media like television and computers, we know very little about the race or ethnicity differences in social networking site use. Recent data indicates no differences in teen Facebook use by race, but significantly more Black youth use Twitter than either White or Hispanic Youth (Madden et al., 2013). Given the historical differences in media use as a function of ethnicity, we control for ethnicity in many analyses in this study.

4.2. Gender

Regarding the overall use of social media sites, nationwide representative surveys of adolescents have generally found that a greater percentage of females had an online profile when compared to males. For example, Lenhart (2009a) found that 86% of surveyed females aged 15 to 17 reported having some type of online profile, compared to just 69% of males in that same age range. In addition, research by Beasley and Conway (2011) found that females aged 13 to 17 spend more time using social networking sites and log into them more than males do each day. Specifically, 25% of surveyed females reported checking their online profiles more than 5 times each day, double the percentage of males who reported doing so. Finally, using a slightly older sample (18 to 19 year-olds) Hargittai (2007) found that females represented a majority of social media users across four platforms: Facebook, MySpace, Xanga, and Friendster, although these were not always significant differences. Based on this body of research,

H1a: in the present sample, females will log onto social networking sites more frequently than males.

Concerning the type of communication practices used by males and females on social networking sites, research has also indicated some differences based on gender. For instance, Rosenberg and Egbert (2011) found that females were more likely to work towards achieving a number of goals on Facebook. For example, females were more likely to experiment with their online identity and the ways in which they interacted with others, working towards achieving a fuller sense of their identity and closer relationships with others (Rosenberg & Egbert, 2011). According to the authors, these goals help to shape the planning of a message, as individuals focus on increasing and maintaining attention and emotional support. Additionally, these goals led to individuals thinking about their self-concept and therefore, engaging in social comparison (Rosenberg & Egbert, 2011). In order to achieve these goals, it is likely that users would need to engage in more constructive communication strategies, in order to post information that can potentially increase others' attention to their profiles and their own sense of identity.

Additionally, Valkenburg and Peter (2007) found that girls aged 12 to 18 were more likely to be socially anxious than boys, in general. Further, socially anxious respondents were more likely to use the Internet and social networking sites for intimate self-disclosure. Again, it seems likely that constructive communication practices, such as posting new photos, updating one's status, or posting on a friend's wall, would need to be used for intimate self-disclosure. While these constructs, such as emotional support, social anxiety, and self-disclosure, are rather disparate, it is important to note that constructive communication practices could be used by adolescents to achieve feelings of emotional support from others, reduce social anxiety, and increase their self-disclosure. The relationship between gender and non-constructive communication is unclear, however. Therefore,

H1b: in the present sample, controlling for age and ethnicity, females will be more likely to engage in constructive communication practices on social networking sites than males.

RQ1: controlling for age and ethnicity, what is the relationship between gender and non-constructive communication practices?

4.3. Age

Similar to the relationship between gender and social media use, the body of research on the relationship between age and social media use is generally consistent with social media use increasing with age during adolescence and early adulthood. For example, Lenhart and colleagues (2010) found that, while over 80% of online teens aged 14–17 used social media sites, just over 50% of online teens aged 12 to 13 did so. Further research by Beasley and Conway (2011) indicated a similar finding, with nearly 70% of 13–17 year-old respondents reporting using social media compared to just 30% of 8-12 year olds. Thus,

H2: controlling for gender and ethnicity, age will be positively related to the number of social media log-ins per day.

In terms of specific communication practices on so-

cial networking sites, research by Valkenburg and Peter (2007) indicated a curvilinear relationship between age and online self-disclosure, such that 15 year-olds were the most likely to engage in such behavior when compared to younger and older adolescents. While a number of other large-scale surveys have measured these practices (Beasley & Conway, 2011; Lenhart, 2009a; Lenhart et al., 2010) few have examined the relationship with age, making this body of research less clear. Therefore,

RQ2: controlling for gender and ethnicity, what is the pattern of relationships between age (13–15 year-olds vs. 16–17 year-olds) and communication practices (both constructive and non-constructive) on social networking sites?

4.4. Access to Technology and Ownership

In addition to demographics, it seems highly likely that access to technology and ownership would be related to both the overall use of social networking sites and the types of communication practices employed by adolescent users. The relationship between technology ownership, access, and online communications practices can perhaps be best understood using the Uses and Gratifications framework (Katz, Blumler, & Gurevitch, 1974). Under this framework, there are several assumptions that underpin an individual's use of media: communication behaviors are motivated, consumers are relatively active in their selection of media, social groups, such as friends and peers, motivate behavior, media compete with other channels for selection, attention, and overall use, and people are more influential in the media effects process than media themselves (Katz et al., 1974).

Using this framework and past research, it is likely that adolescents are especially engaged when selecting and using media. After all, users are generally interested in the utility of a particular technology, and are therefore both interested and motivated to use it (Palmgreen, Wenner, & Rosengren, 1985). Based on this research, if an adolescent perceived that a technology was useful in some way, such as for sending messages to friends, accessing the Internet, or monitoring ones' social networking profile page, he or she would be more likely to use that technology, and use it in specific ways. Previous research has found that perceived utility of a particular technology is a powerful predictor of use among adolescents (Cingel & Sundar, 2012). This, of course, assumes that adolescents have access to such technologies. Research has shown that teens do have access to a number of new technologies, such as cell phones, video game consoles, computers/tablet computers (Lenhart, Ling, Campbell, & Purcell, 2010), all of which give teens the opportunity to access the Internet. In fact, teens spend nearly as much time online as do adults, with 77% percent of adolescents spending over 1 hour online each day, much of that on social networking sites (Beasley & Conway, 2011). Using the example of social media use under this framework, one can imagine why adolescents would be motivated to select and use social networking sites. After all, it is something that their peer group engages in with great frequency (Lenhart et al., 2010), and given the importance of interpersonal relationships and friendships during this developmental period (Sullivan, 1953), adolescents likely see social networking use as critical to their social and emotional wellbeing. Therefore, with a sense of perceived utility and the motivation for use coming from close social groups and other friends, it makes sense that the number of Internet-capable technologies owned or accessible by an adolescent, the more likely they would be to access social networking sites. Therefore, we predict:

H3: there will be a positive relationship between the number of Internet-capable technologies accessible by an adolescent, the likelihood of having a social networking profile, and log-on frequency.

5. Predicting Communication Practices on Social Networking Sites

In the present study, however, we are not only interested in predicting overall use of social media; additionally, we are interested in predicting specific communication practices on social networking sites. We argue that when users choose to post on Facebook, update a status, or post on a friend's wall, they are actively selecting this medium due to its perceived convenience and utility in the communication experience; it allows them to communicate rapidly and easily with their friends, family, and others. Therefore, they have a communication intention in mind, are involved in the experience, and thereby are actively engaging in communication (Blumler, 1979; Rubin, 1993). Here, we refer to these practices as constructive communication practices (e.g. updating one's status, posting on a friend's wall). In regards to constructive communication practices, the user has an intention in mind when engaging in this process; thus, they are generally involved and active as they work to construct a certain communication. In regards to non-constructive communication practices (e.g., watching a video on a friend's wall), while the user has actively selected the medium for its utility, they may not intend to communicate (explaining why they are clicking on other links), and are not as involved in the experience as they would be if they were the one posting the information (Blumler, 1979; Rubin, 1993). Rather, although involved in communication, when users are engaging in these non-constructive communication practices, they are not actively involved the creation of the communication.

Both qualitative and quantitative research has indicated some possible predictors of adolescent online

communication practices. First, Pempek, Yermolayeva, and Calvert (2009) found that, among a college-aged sample, users engaged in both content creation (which could include posting pictures or adding new information) and observing content (which could include reading information on others' walls or looking at others' photos). Although these researchers did not specifically ask where users were engaging in these practices (e.g., on a personal computer or in a public computer lab), it should be noted that this research indicates that social networking site users do engage in a blend of both constructive and non-constructive online communication practices. Using an adolescent sample, research by Lenhart et al. (2010) found that teen ownership of technology, specifically cell phones, was related to using the technology for a broader number of purposes, such as sending more text messages or taking videos, which could include different communication practices.

Given the evidence cited previously, it is not surprising that owning Internet-capable devices would be related to increased use, due to the heightened accessibility afforded by not having to share the technology with someone else and the possibility of having the technology on one's person throughout the day. It also appears that adolescent owners of technology would be more likely to engage in constructive communication practices on social networking sites for a few reasons. First, given heightened accessibility, adolescent technology owners would likely have more time to communicate in general on social networking sites, and especially have more time to engage with others by carrying on online conversations through private messages, instant messages, and wall posts. With the growing number of adolescents that use the privacy features on social networking sites (Lenhart & Madden, 2007; Patchin & Hinduja, 2010), it is also likely that adolescents may think about others' ability to see what they are posting on social networking sites. Being the sole owner of a particular technology may address this concern, as adolescents could control who might see their posted information in both on- and offline settings. For example, Livingstone (2009) found that social networking sites give adolescents privacy from their parents, as adolescents work to connect with friends and therefore become more independent. Therefore, given that adolescents seek privacy from parents, adolescents with more access to private or personal technologies would be more likely to engage in constructive communication practices.

Although these practices were not referred to as constructive communication practices in these previous studies, each practice does require the user to actively select a medium based on a perception of utility. Also, the user must have some communication intention in mind, and thus, should be somewhat involved in the process. Therefore, these practices would all fit into the constructive communication framework as it is defined in the present study. In sum, adolescents should engage in more constructive communication practices, due to the privacy afforded by not having to share the device with someone who they might not want to share the information. It is unclear, however, if access to these technologies will be related to non-constructive communication. Therefore,

H4a: adolescents who primarily use a private home computer will use more constructive communication practices on their profile than adolescents who primarily use a shared home computer or adolescents who primarily use public computers.

H4b: adolescents who own a smartphone will use more constructive communication practices on their profile than adolescents who share a smartphone, own or share a regular phone, or those who don't own or share a cell phone.

H4c: adolescents who own Internet-capable mobile devices, such as iPod Touches, iPads, or other tablet computers, will use more constructive communication practices on their profile than adolescents who do not own any of these technologies.

RQ3: what is the pattern of relationships between private computer, smartphone, and tablet ownership and non-constructive communication practices?

6. Method

6.1. Participants

Overall, 909 children and adolescents between the ages of 8 and 17 completed an online survey instrument designed by the Museum of Science and Industry in Chicago, Illinois, USA during summer 2011. In the present study, we use data collected from 467 participants between the ages of 13 and 17 for analysis, as only this set of participants was asked about social networking site use. Although younger children do indeed use social networking sites, the largest, Facebook, is legally closed to individuals younger than age 13. In total, participants represented 48 states in the US, making the sample national in scope. There were no biases in terms of gender, age, race, or type of schooling. For a listing of demographic data collected from 13- to 17-year old participants, please see the 'demographics' section below.

6.2. Procedure

Once the survey instrument was created by the Museum of Science and Industry, Chicago, it was given to the market research firm MarketTools, which uses an ongoing consumer panel, for distribution. Parents of children ages 8 to 17 were contacted via email and asked to allow their child to complete the online survey. The link to the online survey was embedded in this email.

Participants were selected based on their child's gender, race, age, and home address in the United States. Once parents gave their permission, children and adolescents completed the survey, which took an average of 20 minutes.

6.3. Measures

6.3.1. Demographics

As part of the survey, participants were asked about their gender, age, race, and schooling. In the present sample, males made up a slight majority (54.8%). Almost 19% of the sample were 13 year-olds, 19.9% were 14 year-olds, 25.7% were 15 year-olds, 18.4% were 16 year-olds, and 17.3% were 17 year-olds. In regard to race, 80.0% were Caucasian, 7.6% were African-American, 5.9% were Hispanic/Latino, and 5.9% were Asian. Just over 83% attend public school, 10.5% attend to private school, 3.2% attend a charter school, and 3.2% were homeschooled. Median household income of participants was between $30,000 and $40,000.

6.3.2. Technology Access and Ownership

Participants were asked about their access to Internet-capable technologies and their ownership of such technologies. Specifically, participants were asked where they accessed the Internet: at home on their own computer (69.1%), at home on a computer they shared (41.8%), at school (45.8%), at the library (16.1%), or at a friend's house (28.1%). These percentages do not sum to 100% because these categories were not mutually exclusive.

Next, participants were asked if they had access to a smartphone (identified as a Blackberry, iPhone, or Android phone) or a regular phone (identified as any other type of phone that did not connect to the Internet). Nearly 60% had access to a regular phone, 25.9% had access to a smartphone, and 14.3% did not have access to either. The next question asked if they owned the phone from asked about in the previous question. Here, 80.7% reported that they did own the phone, whereas 13.2% reported that it was their mom or dad's phone, and 6.1% reported that it belonged to someone else in the family.

Finally, participants were asked if they owned any of the following Internet-capable mobile technologies: iPod Touch (27.5%), iPad (8.4%), Android Tablet (such as the Motorola Xoom) (3.5%), or a Windows Tablet (2.2%). Fifty-eight percent did not have access to any of these technologies. This was not a mutually exclusive variable, allowing respondents to indicate if they owned more than one of each of these Internet-capable mobile technologies.

In order to measure adolescents' overall access to Internet-capable technologies, their responses to the previously described three sections were summed. Therefore, this measure included the number of computers that they had access to (personal, shared, school, library, or friend's), whether or not they had access to a smartphone (one they owned or their parent's/relative's), and the number of Internet-capable mobile devices they owned (either iPod Touch, iPad, Android Tablet, or Windows Tablet). Overall, adolescents had access to an average of 2.93 (*SD* = 1.88) Internet-capable devices.

To measure technology ownership, we broke the types of technologies into three groups: computer, cell phone, and Internet-capable mobile devices. Computer ownership was then broken into two groups based on the computer that adolescents generally used to access the Internet: either from home on their own computer, or from home on a computer they shared. While it was possible to report using both a private and shared computer, those who reported having both were put into the private computer ownership group. Additionally, although some adolescents reported not having access to any computers at home, there were not enough in this group for statistical analysis. Overall, 72.3% of adolescents reported having their own computer, while 27.7% reported sharing a computer. Cell phone ownership was broken into 5 groups: adolescents who reported owning a smartphone (24.8%), adolescents who reported using their parent or relative's smartphone (0.9%), adolescents who reported owning a regular phone (50.9%), adolescents who reported using their parent or relative's regular phone (9.1%), and adolescents who did not own or have access to either smartphones or regular phones (14.4%). Finally, Internet-capable mobile device ownership was broken into two groups: those who reported owning at least one iPod Touch, iPad, Android Tablet, or Windows Tablet (64%), and those who did not own any of these devices (36%).

Adolescents' social media use was measured in two ways. To measure the total number of social networking profiles created, adolescents were given a list of 16 different social networking sites (e.g. Twitter, Facebook, Myspace, Stumbleupon, Bebo) and asked to check all of the sites they used at least once a month. The total number that each participant checked was summed in order to measure their total social networking profile ownership. Adolescents reported creating an average of 1.32 profiles (*SD* = 1.55). Secondly, adolescents were asked to respond, using a 1–7 Likert-type scale anchored by 'never' and 'more than five times a day', how often they checked a social networking site each day. Participants scored a mean of 5.52 (*SD* = 1.20). This indicates an average response between 'once a day' and 'two to five times a day'.

6.3.3. Social Media Communication Practices

Given the near ubiquity of Facebook use among the present sample, social media communication practices were measured by asking participants 13 items de-

signed to assess how often they engaged in a number of activities on Facebook, such as posting photos, posting on a friend's wall, posting status updates, watching a video, or clicking a link. These responses were measured using a 1–5 Likert-type scale anchored by 'never' and 'daily'. An exploratory principal-components factor analysis with varimax rotation yielded two dimensions with eigenvalues greater than 1. These two dimensions accounted for 62.86% of all variance and all items fell on their respective dimension with a factor loading greater than 0.60 and a factor loading on the other dimension lower than 0.40. One item ("How often do you play a game such as Farmville") did not load on either factor and was therefore dropped. Overall, 8 items loaded on the first factor (e.g. "How often do you post on a friends wall?", "How often do you post status updates about your life on Facebook?", and "How often do you comment on a friend's post?"). This factor was called constructive communication practices, because each of the practices involved the user actively posting or otherwise communicating some type of information on Facebook. The other factor, which we call non-constructive communication, consisted of 4 items (e.g. "How often do you click through a link in your News Feed or on a friend's wall?", "How often do you share a post from your News Feed?", and "How often do you share news articles, videos, or links from other sites with your fiends via Facebook?"). Both constructive (Cronbach's $\alpha = 0.88$) and non-constructive communication practices (Cronbach's $\alpha = 0.85$) were reliable.

7. Results

7.1. Ethnicity

Due to inadequate numbers of respondents in each ethnic group we could not analyze the data with ethnicity as a predictor of social networking use. Rather, we included it as a control variable in later analyses.

7.2. Gender

H1a predicted that females in the present sample would log onto Facebook more often than males after controlling for age and ethnicity. This hypothesis was tested by using an ANCOVA, which indicated a significant relationship (F (1, 364) = 5.96, $p < 0.05$). Specifically, females (M = 5.68, SD = 1.19) reported logging into Facebook more frequently than males (M = 5.37, SD = 1.19). Thus, H1a was supported.

H1b predicted that females in the present sample would be more likely to engage in constructive communication practices on social networking sites after controlling for age and ethnicity. An ANCOVA was used to test this hypothesis. Results indicated a significant finding (F (1, 360) = 9.92, $p < 0.01$). Specifically, females reported engaging in more constructive communication practices (M = 3.65, SD = 0.88) than males (M = 3.35, SD = 0.91). Therefore, these data support the predicted relationship in H1b.

RQ1 asked if there is a relationship between gender and non-constructive communication practices and was tested using an ANCOVA. Unlike H1b, results were not significant (F (1, 360) = 2.51, p = n.s.). Thus, there is no relationship between gender and non-constructive communication practices, providing an answer for RQ1. The results of this first set of hypotheses indicate that females log onto their profiles more frequently and engage in more constructive communication practices on their profile than males do. There is no relationship between gender and non-constructive communication.

7.3. Age

H2, which asked if adolescents aged 16 to 17 would log into their social networking profiles more than adolescents aged 13 to 15, was tested using an ANCOVA with gender and race as control variables. This test was not significant (F (1, 360) = 0.52, p = n.s.). Therefore, older adolescents (M = 5.59, SD = 1.05) are not more likely to log into social media sites during the day when compared to younger adolescents (M = 5.47, SD = 1.28), which provides an answer to H2. Another ANCOVA was used to test RQ2, which asked about the pattern of relationships between age and communication practices on social media sites. Results indicated that older adolescents (M = 3.52, SD = 0.84) did not use more constructive communication practices on social media sites when compared to younger adolescents (M = 3.47, SD = 0.95) (F (1, 356) = 0.14, p = n.s.). There also was no significant relationship between age groups and non-constructive communication practices after controlling for gender and ethnicity (F (1, 360) = 0.21, p = n.s.). Taken together, this provides an answer to the question posed in RQ2. Overall, there was no difference between younger and older adolescents in terms of the frequency with which they logged into social networking sites or their online communication practices.

7.4. Access

H3, which predicted a positive relationship between an adolescent's access to Internet-capable technologies, the number of online social media profiles they created, and the frequency of logging on to those profiles, was tested using two hierarchical multiple regressions. With the number of adolescent online profiles as the dependent variable, the control variables of gender, race, and age were entered on the first step and were significant (R = 0.14, R^2 = 0.02, F (3, 460) = 2.91, $p < 0.05$). Adolescent access to Internet-capable devices was entered on step two. This was significant as well (ΔR^2 = 0.23, $p < 0.01$; β = 0.49, $p < 0.01$). Therefore, adolescents with access to more Internet-capable technologies report having more online social networking profiles.

For the second hierarchical multiple regression, the frequency of logging on was entered as the dependent variable. Again, gender, race, and age were entered as control variables, but were not significant (R = 0.13, R^2 = 0.02, F (3, 463) = 2.18, p = n.s.). The frequency of logging on to social networking sites was entered on step two and was significant (ΔR^2 = 0.02, p < 0.01; β = 0.15, p < 0.01). Therefore, adolescents with more access to Internet-capable devices have more social networking profiles and log into those profiles more often than those with less access to Internet-capable devices. These results provide support for H3.

7.5. Ownership

H4a predicted that adolescents who had their own private computer would use more constructive communication on their social networking profiles than adolescents who used a shared home computer or a public computer. An ANCOVA with gender, race, and age as control variables was used with constructive communication practices as the dependent variable. This was not significant (F (1, 354) = 0.36, p = n.s.). An ANCOVA with the same controls was also used to test non-constructive communication practices. This test was not significant as well (F (1, 354) = 0.98, p = n.s.). Therefore, computer ownership does not appear to influence the communication practices on social networking sites among adolescents, and thus, H4a was not supported.

An ANCOVA with gender, race, and age as controls was also used to test H4b, which predicted that adolescent smartphone owners would engage in more constructive communication practices on those profiles than adolescents who shared a smartphone with a parent, adolescents who either owned or shared regular phones, or adolescents who did not have access to any mobile phones. With constructive communication practices as the dependent variable, results were significant (F (4, 357) = 3.58, p < 0.01). Post-hoc tests with a Bonferroni adjustment indicated that smartphone owners (M = 3.76, SD = 0.80) differed significantly from regular cell phone sharers (M = 3.19, SD = 0.92) (p < 0.05), and adolescents with no access to cell phones (M = 3.20, SD = 1.00) (p < 0.01) (see Table 1). For non-constructive communication practices, results were similar (F (4, 357) = 3.22, p < 0.05). Specifically, adolescent smartphone owners engaged in significantly more non-constructive communication practices (M = 3.20, SD = 1.00) than adolescents who did not report owning a smartphone (M = 2.59, SD = 1.04), although these numbers were lower than those for constructive communication. In sum then, adolescents who own a smartphone engage in more constructive communication practices than regular cell phone sharers and adolescents who do not have access to a cell phone. These results offer partial support for H4b. Additionally, smartphone owners also engage in more non-constructive communication practices than those who do not own a phone.

Finally, H4c was tested using an ANCOVA with gender, race, and age as controls. This hypothesis predicted that adolescents who owned Internet-capable mobile devices, such as iPod Touches or iPads would engage in more constructive communication practices than adolescents that did not own such technologies. With constructive communication practices as the dependent variable, results were significant (F (1, 360) = 6.44, p < 0.05). Specifically, Internet-capable mobile device owners scored higher on the measure of constructive communication practices (M = 3.65, SD = 0.88) than adolescents who did not own any of these technologies (M = 3.39, SD = 0.91). These results provide support for H4c. For non-constructive communication behaviors, results were significant as well (F (1, 360) = 12.98, p < 0.01). Similar to results for constructive communication, mobile technology owners engaged in significantly more non-constructive communication (M = 3.17, SD = 1.11) that those who did not report owning Internet-capable mobile devices (M = 2.74, SD = 1.04). Taken together, and similar to results for constructive communication, smartphone and mobile device, but not computer, ownership was related to increased non-constructive communication practices, providing an answer for RQ3.

8. Discussion

8.1. Summary of Findings

Overall, results indicate that adolescent demographics, access to technology, and technology ownership are predictive of both the frequency of social media log-ins as well as constructive communication practices. Specifically, data indicate that females tend to log into their social media profiles more often than males. Also, females were more likely to engage in constructive, but not non-constructive, communication practices when compared to males, making gender one predictor of social media use and certain types of communication practices. Age, however, was not a predictor, as it was not related to either log in behavior or communication practices.

In terms of access to technology, those with greater access reported having more social media profiles on multiple sites. Additionally, those with greater access also reported logging into those profiles more frequently than those with less access. Therefore, technology access, which in the present study included access to computers, cell phones (both smartphones and regular phones), and Internet-capable devices (such as iPads and tablet computers), is another predictor of both adolescent social media log-in behavior and online communication practices.

Table 1. Differences between Technology Ownership on Constructive Communication.

	M	*SD*
Computer Ownership		
Computer Owner	3.52[a]	0.92
Computer Sharer/No access	3.47[a]	0.86
Mobile Phone Ownership		
Smartphone Owner	3.76[a]	0.80
Smartphone Sharer	3.38[a,b]	0.35
Regular Phone Owner	3.50[a,b]	0.90
Regular Phone Sharer	3.19[b]	0.92
No Phone	3.17[b]	1.01
Mobile Device Ownership		
Mobile Device Owner	3.64[a]	0.88
Mobile Device Sharer/No access	3.40[b]	0.91

Note: superscripts [a] and [b] are used to indicate significant differences between the means within each technology ownership category. Means that do not share a common superscript in the same technology ownership category differ significantly at $p < 0.05$.

Finally, results indicated that adolescents with access to a personal computer were no more likely to engage in constructive or non-constructive communication practices than adolescents who only had access to a shared computer or no access at all. Smartphone owners, however, engaged in more constructive practices than adolescents who shared a regular phone or adolescents who did not have access to any type of mobile phone. Lastly, results indicated that adolescents who owned Internet-capable mobile devices engaged in more constructive and non-constructive communication practices than adolescents who did not own any of these devices. Overall then, results indicate that mobile device ownership, and not necessarily technology ownership of all kinds, was generally predictive of constructive and non-constructive communication practices among adolescents.

8.2. Implications

Practically, these findings are important, especially those that elucidate predictors of constructive communication practices on social networking sites. Overall, it appears that not all types of owned technology are related to increases in such communication practices online. Specifically, mobile technologies, such as smartphones and Internet-capable mobile devices like iPads and tablet computers, were related to increases in constructive communication practices, whereas having a personal computer was not related to any increase. This perhaps indicates the role that mobile technologies play in social networking use and online communication practices. After all, as predicted under the Uses and Gratifications framework, adolescent users of these technologies who perceive them to be high in utility will be more motivated to use them and presumably use them more often and for longer periods of time (Blumler, 1979; Rubin, 1993). This is particularly important when considering the possible risks of social networking site use among adolescents. As noted by Barbosa et al. (2013), large numbers of adolescents do post controversial and potentially self-identifying information on their profiles. Therefore, any research that illuminates predictors can be used to inform interventions and information campaigns that teach adolescents about the possible issues with posting such information (see Moreno et al., 2009).

More so than computers, it makes sense that mobile technologies would be perceived by adolescents to be more useful, because they allow the adolescent to remain connected with friends online wherever they go. Since owning these technologies allows adolescents to update their profiles on the go, it follows that owning these technologies would be related to increased communication practices online. Here, the adolescent can quickly post a status update about the concert they are attending, the class they are sitting in, or the sporting event they are watching. Based on the results of the present study, it might not necessarily be the privacy of ownership that is related to these communication practices, specifically constructive communication, but rather, the addition of the convenience and features of certain technologies. That is not to say that privacy is not important; while mobile technologies allow for communicating on the go, they also allow the user to communicate in relative privacy if they so choose. The results of this study would seem to add to and extend to previous findings, indicating that perhaps both general ownership of technology as well as ownership of specific mobile technologies relates to constructive communication practices on social networking sites. Taken together with previous research, it seems that both the privacy and the convenience of mobile technologies may be related to both social media use and communication practices online. Therefore, the results of this study can be used to better understand the predictors of both social media use and online commu-

nication practices among adolescents. By focusing on demographic, technology access, and technology ownership predictors of adolescents' social networking site use and communication practices, the present study adds to the current body of literature focusing on social and psychological predictors of use of and attitudes toward social networking sites (e.g., Gangadharbatla, 2008; Ljepava, Orr, Locke, & Ross, 2013).

8.3. Limitations and Future Research

Although efforts were made by the market research company to recruit participants from around the United States, the overall sample was not representative because it was only sent to parents of adolescents who had signed up on an online website. Despite this limitation to the sample, however, it must be noted that the sample was national in scope, and was not biased toward gender, age, or race. Additionally, as it was an online survey, the sample is biased against adolescents who do not have access to the Internet, although research indicates that this is generally a small percentage (Lenhart et al., 2010). Finally, this survey was originally collected for the purposes and uses of the Museum of Science and Industry, Chicago, prior to the collaboration with the authors at Northwestern University. As a result, when analyzing the data for the purposes of this particular study the authors were limited by the specific questions asked in the original study.

Future research should continue to explore the relationship between ownership, access, and teen social media use. While the present study indicated some predictors of social media use, we did not measure *exactly* what adolescents were saying in either their constructive or non-constructive communications. Therefore, future research should examine other types of predictors, including social and psychological measures, that may play a role in youth's communication practices on social networking sites as well as explicitly what youth are saying in their communication online. Given the literature cited throughout this paper, it is likely that adolescents use such communications online to engage in a range of practices. As indicated by Valkenburg and Peter (2008), it is possible that the adolescents in this sample used constructive communication practices to explore their identity while connecting to others. It is also possible that they used constructive communication practices to post possibly sensitive information about themselves. Therefore, using this study as a basis, future research can and should continue to examine the exact communication practices of adolescents on social networking sites, relating it to both positive and negative outcomes.

8.4. Conclusions

Overall then, results from this study indicate that demographics, such as gender, media accessibility, and certain types of media ownership are all related to increases in social media use among adolescents. Additionally, these predictor variables are also related to heightened communication practices online, which include posting pictures, commenting on friends' walls, and updating one's status. Given the mixed findings regarding adolescent communication practices on social networking sites, it is important to understand predictors of both social media site use and communication practices on those sites.

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Conflict of Interests

The authors declare no conflict of interests.

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Article

Violence in Popular U.S. Prime Time TV Dramas and the Cultivation of Fear: A Time Series Analysis

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Abstract
Gerbner and Gross's cultivation theory predicts that prolonged exposure to TV violence creates fear of crime, symptomatic of a mean world syndrome. We tested the theory's prediction in a time series model with annual changes in violence portrayal on popular US TV shows from 1972 to 2010 as a predictor of changes in public perceptions of local crime rates and fear of crime. We found that contrary to the prediction that TV violence would affect perceptions of crime rates, TV violence directly predicted fear of crime holding constant national crime rates and perceptions of crime rates. National crime rates predicted fear of crime but only as mediated by perceptions of local crime rates. The findings support an interpretation of cultivation theory that TV drama transports viewers into a fictive world that creates fear of crime but without changing perceptions of a mean world.

Keywords
content analysis; crime; cultivation theory; fear; transportation theory; TV violence

Issue
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1. Introduction

> "Fearful people are more dependent, more easily manipulated and controlled, more susceptible to deceptively simple, strong, tough measures and hard-line postures—both political and religious. They may accept and even welcome repression if it promises to relieve their insecurities. That is the deeper problem of violence-laden television."
>
> George Gerbner, Ph.D, testimony before a U.S. House of Representatives Sub Committee, October 21, 1981 (Gerbner, 1981a, p. 7).

Cultivaton theory, developed by Gerbner and Gross (1976) and colleagues (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002), is among the three most cited theories in communication research (Bryant & Miron, 2004). Gerbner et al. argued that television (TV), as the dominant cultural medium, cultivated a social reality that was often at odds with objective reality. They were particularly interested in the effects of violent TV content, which they predicted would create fear of others in audiences. Indeed, "[F]ear—that historic instrument of social control—may be an even more critical residue of a show of violence than aggression" (Gerbner & Gross, 1976, p. 178). Gerbner et al. supported this contention with their pioneering Cultural Indicators Project's (CIP), which content analyzed TV programming and found extensive violent

content (Morgan, Shanahan, & Signorielli, 2008). They proposed that long-term heavy exposure to such TV content would gradually cultivate unrealistic fear and heightened mistrust of others.

Analysis of national surveys revealed that heavy TV viewers overestimated the prevalence of violence and the presence of police (Gerbner, Gross, Signorielli, Morgan, & Jackson-Beeck, 1979). When heavy viewers were asked whether they would be 'afraid to walk alone at night in their neighborhood,' they were more likely to answer yes than light viewers. Gerbner and colleagues named this phenomenon the 'mean world syndrome,' which consisted of viewing the world as a dangerous and violent place, where people 'just looked out for themselves,' and 'could not be trusted' (Gerbner, Gross, Morgan, Signorielli, 1980).

Despite its influence on media research, cultivation theory met with considerable criticism. For example, Doob and Macdonald (1979) challenged it with the finding that heavy TV viewing by survey respondents no longer predicted fear of their environment after controlling for the amount of crime in their Toronto, Canada neighborhoods. Further criticism of cultivation theory came from Hughes (1980) and Hirsch (1980, 1981), who reanalyzed the surveys analyzed by Gerbner and colleagues and found that cultivation effects were no longer present after demographic controls were added. They argued instead that evidence of cultivation could be explained by patterns of TV viewing by various demographic groups (e.g., those of low income or low education) that were also more likely to mistrust others.

Gerbner and colleagues responded to these criticisms (Gerbner, 1981b; Gerbner, Gross, Morgan, & Signorielli, 1981) by emphasizing the concepts of resonance and mainstreaming to correct for the effects of potential demographic differences (Gerbner, Gross, Morgan, & Signorielli, 1980). However, the field continued to identify limitations in the cultivation approach. Whereas the theory initially proposed that cultivation effects were attributable to the entire body of TV content, subsequent research suggested that it might only apply to specific types of programming. For example, in a survey of Florida adults, Chiricos, Eschholz, and Gertz (1997) found that watching TV news and listening to radio news predicted fear of crime. Romer, Jamieson and Aday (2003) found that fear of crime was cultivated by local and national TV news reporting rather than overall TV viewing. In addition, Dowler (2003) analyzed a 1995 national sample of adults and found a weak relation between watching crime shows and fear of crime but no prediction for the amount of TV hours watched per week. Thus, it became clearer that the type of programming watched could be an important factor predicting cultivation effects (Romer et al, 2014).

Despite the critiques, a 1997 meta-analysis by Morgan (1996) of a comprehensive published bibliography of cultivation studies since 1976 found a small but significant overall cultivation effect, r = 0.091. Nevertheless, nearly all of the research included in the analysis was cross-sectional. Therefore it remains an open question whether the effects of TV viewing on fear of crime are attributable to TV content or are the result of confounds from subsets of the population more inclined to watch shows that feature crime (e.g., police dramas or local news) and more likely to be fearful apart from TV exposure.

Previous research has also not tested a striking feature of cultivation theory, that heavy viewing of fictional TV programming can change perceptions of the world, so that those perceptions become more consistent with fictional TV than with the reality that viewers confront on a daily basis in their lives. It is not difficult to imagine that news programming might influence viewers' perceptions of crime rates (Lowry, Nio, & Leitner, 2003; Romer, Jamieson, & Aday, 2003) but such a prediction regarding fictional TV is more controversial.

The present research was designed to help evaluate the theory's prediction regarding fictional TV programming. Rather than studying a cross-section of the population, our study examined changes over time in national exposure to violent TV content sampled from the Coding of Health and Media Project (CHAMP, see www.YouthMediaRisk.org). This project conducted a content analysis of TV programming from 1950 to the present that focused on one type of programming that should produce cultivation effects on fear of crime, namely popular prime-time dramas featuring stories with police, legal, medical, and western themes. By examining annual deviations from trend in violent TV content, this time series analysis (Diebold, 2007) can evaluate the relationship between the public's perceptions of crime prevalence and its fears of crime as reported in Gallup's national opinion surveys. This eliminates the problem of confounds due to demographic and viewing pattern differences because these characteristics would not be expected to change from year to year. In addition, annual changes in violent TV content can be distinguished from changes in police reports of violent crime, thereby providing a relatively clean prediction of the effects of TV fictional content on the public's reported fear.

We also tested a model that could determine whether the relationship between fictional TV violence and fear of crime was mediated by changes in perceptions of real-world crime prevalence, as cultivation theory would predict. According to cultivation theory, fictional TV creates an impression of a mean world that should mediate the experience of fear. However, an alternative explanation suggests that violent programs, by dramatizing the effects of violence, can influence fear without affecting perceptions of real-world crime.

Suspending disbelief in dramas is a powerful mechanism that allows viewers to identify with the characters and experience their emotions vicariously,

in a sense "transporting" them into the world of the drama (Green & Dill, 2013). For example, in an early study of the effects of transportation in TV ads, Deighton, Romer and McQueen (1989) found that TV ads classified as dramas, rather than persuasive arguments, were processed emotionally more than cognitively and persuaded consumers by engaging them empathically. Dramas were just as successful in persuading consumers as factual appeals, but the mechanism was different, relying instead on the audience's ability to place (i.e., "transport") itself into the actors' world and experience the actor's use of the product. Similarly, this process could explain an emotional fear reaction in an audience viewing violent TV dramas. In other words, drama can transport the audience without necessarily affecting perceptions of the prevalance of crime in their daily environment.

Repeated TV show exposure can also encourage parasocial relations between the audience and the show's characters (Schiappa, Allen, & Gregg, 2007), an effect that can heighten the empathic experience elicited by identification with TV characters. Green & Brock built transportation theory on these mechanisms, which can explain audiences' affect-based involvement with fictional characters (Green & Dill, 2013). Oatley (1999) also argued that identification and sympathy with the protagonists goals or the re-experience of emotions triggered by the drama could enhance the impact of fictional depictions. Thus, we proposed that transportation mechanisms may explain changes over time in the cultivation of fear of crime predicted by violence in fictional TV dramas and could do so apart from changes in perceptions of real world crime prevalence.

2. Research Questions

Given our ability to evaluate changes in violent TV content over time, we posed two research questions:

> RQ1: Do changes in this programming from year to year correlate with corresponding changes in national levels of fear of crime apart from official national crime rates? and
> RQ2: if the violence rate in TV programming correlates with fear, is this relation mediated by changes in perceptions of real world crime rates or by other processes, such as by transporting audiences into experiencing fear apart from levels of violence reflected in those rates?

3. Method

3.1. TV Sample Selection

For the purposes of this study, we used the Coding of Health and Media Project (CHAMP) content analysis of the top 30 prime-time drama network television episodes from 1972 to 2010 that were available for purchase as identified by Brooks and Marsh (Brooks & Marsh, 2009) and Nielsen's website http://www.nielsen.com/us/en.html. We began the study series in 1972 because it was the year when national survey data regarding crime issues became more regular on an annual basis. Sampled TV shows across the decades included crime, detective, and medical genres, such as *Kojak* and *Hawaii Five-O* from the 1970's, *Hill Street Blues* and *Trapper John M.D.* from the 1980's, *Law and Order* and *ER* from the 1990's, and *CSI: Crime Scene Investigation* and *House M.D.* from 2000–2010. The shows we sampled remained popular over time, making it likely that we could capture the same audiences from year to year. For a list of sampled TV shows by year, see www.YouthMediaRisk.org. Because TV seasons cover two calendar years, the study examined TV episodes that ran in the spring and fall of the same year so that they could be compared with annual measures of fear of crime, perceptions of violent crime prevalence, and FBI reports of crime.

When available, every other episode was coded per season, or if fewer than six episodes were available for purchase, all available episodes were coded. We coded fall and spring seasons separately to enable a match between TV content changes and the most closely corresponding Gallup survey from the spring or fall of the 25 available years of the fear of crime data. The sample totaled 475.4 hours of commercial-free programming from 1972 to 2010 with a mean of 19.0 hours per year (standard deviation = 11.2). The study did not seek I.R.B. approval because it did not involve human subjects.

The dramas in our sample reflected a popular part of the prime-time TV landscape based on examination of Nielsen household viewership shares, which estimate the percentage of TV households tuned to a program (Local Media Market Solutions, 2012). Because household TV penetration is available for every fifth year (Local Media Market Solutions, 2012), we calculated shares for those years from 1975–2005 as follows: (sum of Nielsen shares for TV shows in year) × (% of households with TV in the same year). These scores, estimated every 10 years, show the total household shares annually exposed to the sampled shows. The show values were 43.0 in 1975, 63.5 in 1985, 58.4 in 1995, and 106.0 in 2005. Shares increased since 1975 because in later years more shows were available for coding and the proportion of households with TV increased. These share totals indicate that sizeable proportions of households were exposed each week to the TV shows during the fall and spring seasons (excluding reruns).

3.2. Coding of TV Violence Sequences

Twenty undergraduate students were trained to master a codebook of rules for the identification of violent and other content (see http://youthmediarisk.org for

the codebook). Training was based on about 21 hours of TV content. Coders were required to exhibit a high level of reliability using Krippendorff's alpha formula (Krippendorff, 2012) (Kα > 0.80), which controls for chance agreement across coders. The typical coding unit was either a 4- or 4.5-minute segment based on dividing half-hour episodes without commercials (20 mins) into 5 equal segments and dividing hour long episodes with no commercials (45 mins) into 10 segments. Hence, the coding unit was made as close as possible to the 4-minute length of half-hour episodes, which were the dominant episode length. Because this could produce more violent segments for shorter episodes, we converted violence rates to a time-based based metric (i.e., instances per commercial free episode hour).

The definition of violence was adapted from previous research (Yokota & Thompson, 2000) as follows, "Physical acts where the aggressor makes or attempts to make some physical contact with the intention of causing injury or death" and "intentional acts where the aggressor makes or attempts to make some physical contact that has potential to inflict injury or harm." We excluded natural disasters; accidents, objects not attributed to a character, and expected physical acts in sport games that are not intended to seriously injure (tackling, checking, boxing, stunts). The violence measure did not differentiate violence that may produce more or less fear such as between stranger versus family violence or violence committed in self defense. We assumed these features would not change dramatically from year to year and thus would not explain any relations we found with fear of crime.

Violent acts were counted as "sequences of violence" (Bushman, Jamieson, Weitz, & Romer, 2013). A sequence of violence was defined as an uninterrupted display of a character or a group of characters engaged in acts of violence. Violence was coded as uninterrupted if the character used one weapon or method continuously, regardless of the number of victims. Violence counts of 25 or more sequences per 5 minute segment were recoded to a value of 25. The sum of violent sequences per coding segment was the measure of violence in a segment. Reliability for identifying TV violent sequences was high (Kα = 0.87).

We coded fall and spring episodes separately so that we could match TV violence rates more closely to the time of year when the Gallup survey was taken. In some of the years (24%), Gallup surveyed fear closer to the spring TV schedule. For each time period, we calculated the mean of the log transformed violence rates across episodes and converted the scores back into the actual rate per episode hour. The fall and spring violence rates were highly correlated (r = 0.61).

3.3. Assessment of Fear and Prevalence of Crime

Survey data collected by the Gallup Poll from 1972 to 2010 were used to assess national rates of the US public's fear of crime and perceptions of crime prevalence. The Gallup Poll is a demographically weighted random-digit-dialed national telephone survey that asks the following question of respondents ages 18+: "Is there anywhere near where you live that is, within a mile, where you would be afraid to walk alone at night?" (Gallup, 2010a). The annual percent of yes responses was used to measure fear of crime. There were years in which the question was not asked, leaving us with 25 time points between 1972 and 2010.

The Gallup survey was used rather than results for the same question in the National Opinion Reseach Council's General Social Survey (GSS) because Gallup covered a longer time period and was a nationally representative telephone sample rather than the GSS, which uses in-person home-based interviews that may have introduced a sample bias by only including respondents who were not fearful of strangers (i.e., being interviewed in their homes).

The perception of crime prevalence was assessed using the same Gallup national telephone survey question for ages 18+: "Is there more crime in your area than there was a year ago, or less?" (Gallup, 2010b). The percent that responded 'more' was used as the measure of perceived prevalence. There were years in which the question was not asked, leaving us with 22 time points between 1972 and 2010 for this item.

3.4. National Violent Crime Rate

The annual national violent crime rate was taken from the FBI uniform crime reports (Bureau of Justice Staistics, 2013), which had data for every year since 1972. It measures the rate per 100,000 persons of violent crimes reported to the police in the U.S. This index includes murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault.

3.5. Data Analysis

Curve fitting for identifying best fitting trends was conducted using SPSS 20.0. The study variables were detrended by identifying the best fitting polynomial function for non-missing cases as measured by adjusted R^2. Residuals from the best fitting polynomial function served as the measure of annual deviations from trend (Diebold, 2007). These residuals were also evaluated graphically to confim stationarity (i.e., that the overall level and deviations from the mean of the series did not change over time after removing the underlying time trend), an important prerequisite for analyzing relations between time series (Diebold, 2007). The program MPlus version 7.1 (Muthén & Muthén, 2013) was used to fit a structural equation model (SEM) to test the model in Figure 1, including tests of mediation (MacKinnon, 2008). Robust standard errors

were applied to protect against violations of normality, correlated errors, and heteroscedasticity. The program only included non-missing cases (N = 25) for reported fear, the dependent variable. Missing data for perception of crime (16%) were handled using full information maximum likelihood (FIML) procedures. Model fit was good after dropping the nonsignificant path from TV violence rate to perception of crime using multiple indices of global fit and residual diagnostics. The indices included a low $\chi^2(1) = 0.029$, p = 0.866 and root-mean-square-error-of-approximation (RMSEA) value = 0.000; high values of the comparative fit index (CFI) = 1.00 and the Tucker-Lewis Index (TLI) = 1.14. All tests were two tailed, and 95% confidence intervals (CI) are reported.

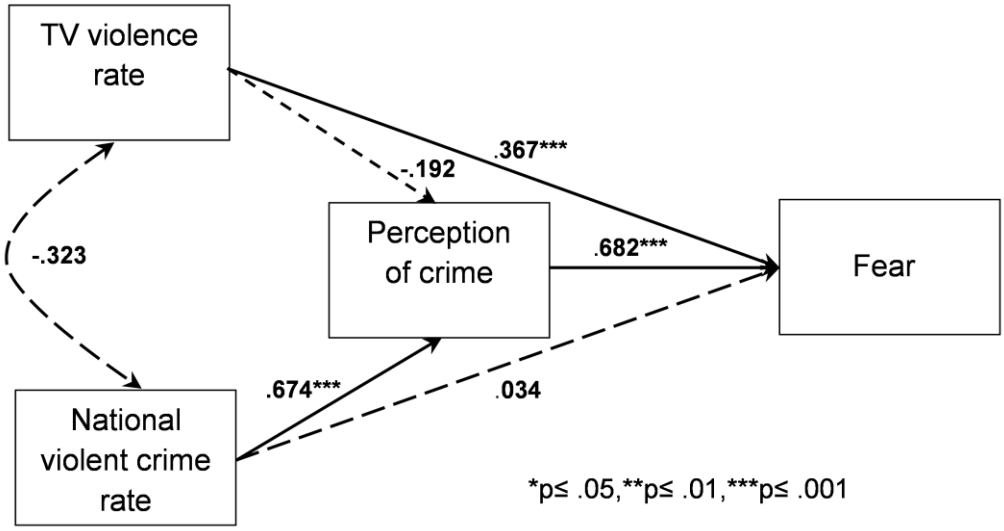

Figure 1. Standardized solution for the structural equation model of predictors of fear of crime (all variables detrended). Dashed paths are nonsignificant.

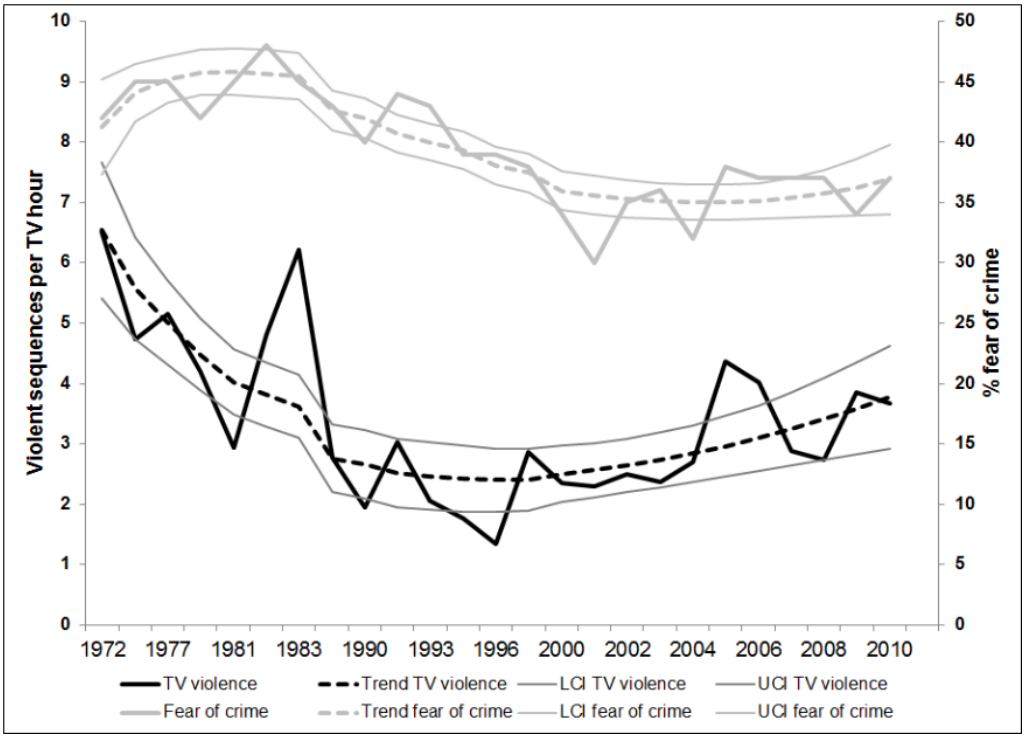

Figure 2. TV violence rate (left) and percentage of population reporting fear of crime (right) with best fitting trends and upper (UCI) and lower (LCI) 95% confidence intervals, 1972-2010.

4. Results

As seen in Figure 2, TV violence exhibited a quadratic trend over the study period (adj. R^2 = 0.60, p ≤ 0.001) dropping rapidly from 1972 to the mid 1990s before rising again to 2010. This violence count per episode hour declined from 6.5 in 1972 to a minimum of 1.4 in 1996 and rose again to 3.7 in 2010 (mean = 3.4). Fear of crime followed a cubic trend (adj. R^2 = 0.75, p ≤ 0.001) that also declined from a high point in the 1980's to rise again in the 2000's. The variable ranged from 42% in 1972 to 30% in 2001 and rose again to 37% in 2010 (mean = 39.4%). As seen in Table 1, these two raw rates were correlated (r = 0.469). It is noteworthy that the FBI national crime rate was inversely related to the TV violence rate (r = -0.483) but positively related to fear (r = 0.388). The violent crime rate ranged from a maximum of 758.2 in 1991 to a minimum of 404.5 in 2010 (mean = 553.4). However, the FBI crime rate was unrelated to perceptions of crime (r= 0.174), which declined from 51% in 1972 to 26% in 2001 and rose again to 49% in 2010 (mean = 44.4%). Nevertheless, perceptions of crime and reported fear of crime were strongly correlated (r= 0.544).

The detrended time series for TV violence and fear are shown in Figure 3. Detrended series for national crime rates, perceptions of crime prevalence, and fear of crime are in Figure 4. As seen in Table 1, Detrended TV violence and fear of crime were not significantly correlated at the bivariate level (r = 0.222). However, the detrended violent crime rate was associated with detrended fear of crime (r = 0.373) and especially with perceptions of crime prevalence (r = 0.705) As with the raw trends, detrended perceptions of crime prevalence were associated with fear of crime (r = 0.640).

The SEM results in Table 2 show that TV violence was correlated with fear after controlling for national crime rates. However, this relationship was direct with no mediation by crime prevalence perceptions (see also Figure 1). In addition, national crime rates were related to fear but the relationship was mediated by perceptions of crime prevalence. The total effect of national crime rates on fear as mediated by perceptions of crime prevalence was significant. Total hours of coded TV programming per year (i.e., the closest matching fall or spring TV episodes per year matched in time with the closest half year when Gallup surveyed fear) did not change the pattern of results when added to the SEM analysis. Using the full year of TV violence with both the spring and fall seasons rather than the season closest to when the Gallup fear survey question was taken produced a similar but somewhat less reliable result (p < 0.05).

Table 1. Pearson correlations (N) for detrended (bottom) and raw (top) study variables, 1972–2010.

	Fear of Crime	TV violence rate	Perception of crime	FBI crime rate
Fear of Crime	(25)	0.469** (25)	0.544** (21)	0.388* (25)
TV violence	0.222 (25)	(25)	0.183 (21)	-0.483** (25)
Perception of crime	0.640*** (21)	-0.186 (21)	(22)	0.174 (22)
FBI Crime rate	0.373* (25)	-0.323 (25)	0.705*** (22)	(39)

Note: *p ≤ 0.10, **p ≤ 0.05, ***p ≤ 0.01

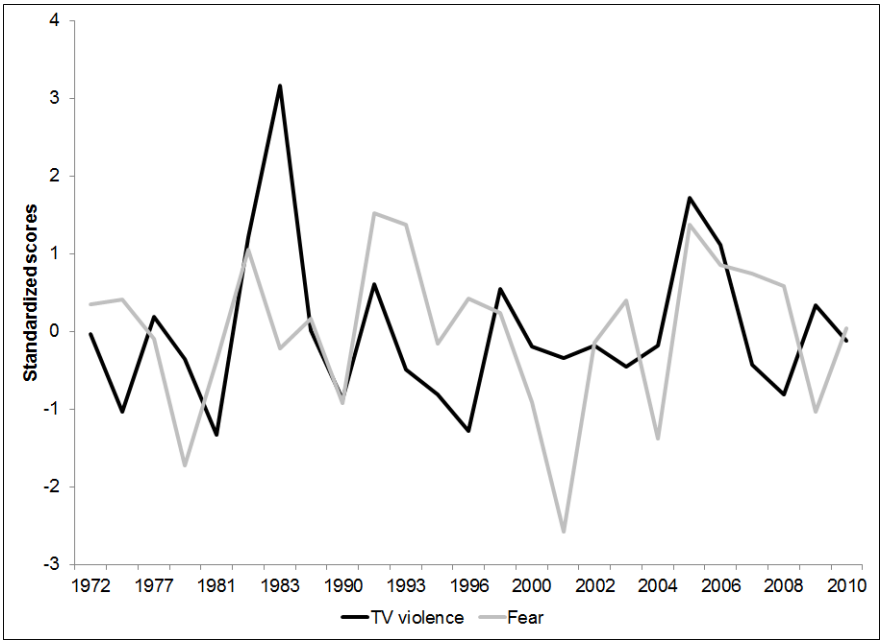

Figure 3. Detrended standardized scores for TV violence rate per hour and fear of crime, 1972–2010.

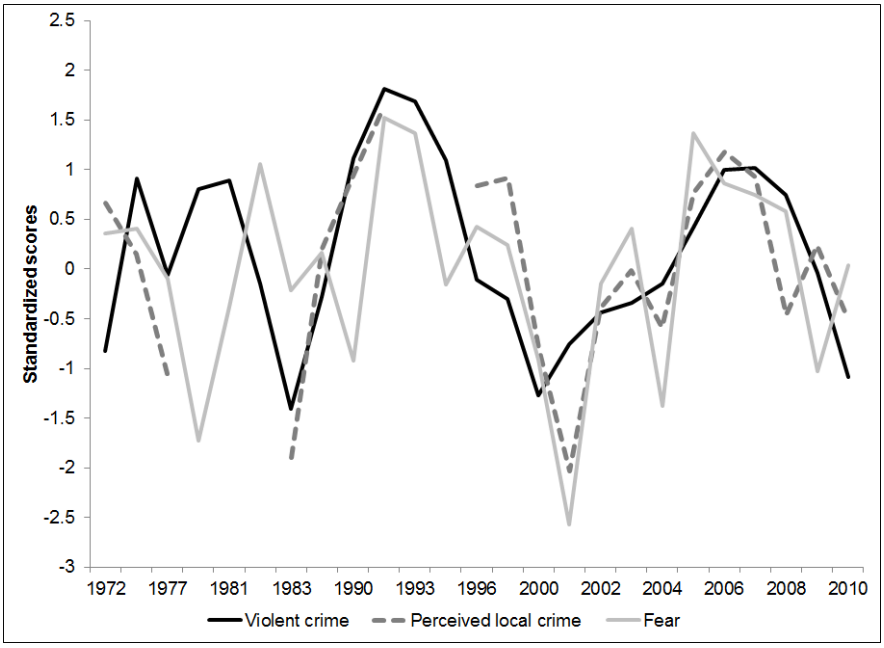

Figure 4. Detrended standardized scores for the national violent crime rate, perceptions of crime, and fear of crime, 1972–2010.

Table 2. Model parameters and tests for detrended predictors of fear of crime with tests for mediation, 1972–2010.

Independent variables	b	95% CI	P value
	Fear of Crime		
TV violence	0.968	0.510, 1.43	0.000
Perceived crime rate	0.229	0.089, 0.368	0.001
National (FBI) crime rate	0.002	-.020, 0.024	0.858
	Perception of Crime		
National (FBI) crime rate	0.116	0.068, 0.165	0.000
	Mediation		
Total effect of FBI crime rate on Fear of crime	0.029	0.010, 0.047	0.002
FBI crime rate → Perceived crime → Fear of crime	0.027	0.004, 0.049	0.020

5. Discussion

We tested predictions informed by cultivation theory that annual changes in violent content of popular U.S. TV dramas would predict the American public's perception of local crime rates and its fear of crime and that these relations would occur independently of national violent crime rates. We tested these predictions using a structural equation model in which perceptions of crime rates mediated effects of both TV violence and national crime rates on fear of crime. We found that although national crime rates predicted perceptions of local crime rates, TV violence did not. Rather, the results suggest that TV violence was directly related to fear of crime with no significant mediation by perceptions of local crime rates. National crime rates also predicted fear but only as mediated by perceptions of local crime rates.

Our findings supported an important prediction of cultivation theory that the rate of TV drama violence predicts reported fear of crime. However, TV drama violence did not predict audience perceptions of crime prevalence. Instead, national crime rates compiled by the FBI were related to perceptions of local crime rates, and these perceptions mediated the relation between crime rates and fear. Thus, the results suggest that the public's perceptions of changes in local crime rates may be sensitive to changes in police reports of crime but not to changes in the amount of violence shown in TV dramas.

The study results are consistent with the prediction from transportation theories that TV drama violence can influence fear but not necessarily by changing the audience's beliefs about the prevalence of crime in their local environments. Therefore, we interpret the results as supporting the hypothesis derived from transportation theories (Green & Brock, 2000) that TV audiences may be transported into a fictive world in which the effects of portrayed violence are experienced emotionally by the audience but do not lead to changes in the perceived prevalence of crime. Indeed, theories of drama suggest that it is often the willing

suspension of disbelief that enables audiences to empathize with characters and thereby to experience their emotions (Green & Brock, 2000). And although this experience can be quite powerful, these results suggest it does not necessarily require changes in perceptions of the prevalence of the dramatized experience in the real world.

There is evidence that non-fiction media exposure, such as in TV and radio news (Chiricos, Eschholz, & Gertz, 1997) and police reality shows (Holbert, Shah, & Kwak, 2004), perhaps because they are perceived as real, generate fear in the public. For example, Lowry, Nio, and Leitner (2003) used agenda setting as the theoretical explanation for the finding that national network news predicted crime as the nation's 'most important problem.' Consistent with cultivation theory, Romer, Jamieson, and Aday (2003) found that local TV news in cities with high coverage of crime predicted fear of crime and crime perceptions. Holbert, Shah, and Kwak (2004) analyzed a two-year national probability sample and reported that while viewing crime dramas did not predict fear of crime, exposure to television news and police reality programs did. They attributed this difference to police reality programs being perceived as more real. We find it noteworthy that both TV violence and fear of crime have changed in tandem over time in recent years even though the actual violent crime rate has declined over this period (not shown) (Gallup, 2010a). Therefore, this pattern suggests that TV dramatic portrayals have increased fears of crime despite the decline in the actual violent crime rate. We do not have measures of TV news progamming that could tell us whether the reporting of crime has declined over this period. However, it is likely that TV news trends have captured at least some of the national violent crime rate trend. In addition, by holding constant perceived prevalence of crime, we have controlled some of the potential influence of TV news, which would be expected to affect this perception.

Consistent with Gerbner's cultivation theory prediction that TV programming promotes fear and political positions that favor control of crime, Rosenberger and Callanan (2011) found that hours of TV watched predicted more severe attitudes toward the treatment of criminals. At the same time, it is possible that viewers of fictional TV dramas are also more likely to be exposed to TV news or other TV content that carries fear arousing messages disseminated by political actors. Indeed, Beckett (1999) found that politicians often play on fear of crime as a way to gain support for punitive policies. Although we could not control for these effects, it is unlikely that these news effects would be correlated with annual changes in fictional programming. Furthermore, our controls for changes in perceptions of crime suggest that news or other sources are channeled through that path rather than through changes in fictional TV programming.

Because we use a time series approach that allows us to control for demographics but at the same time observe large changes in levels of violent programming, our findings eliminate a common problem with cultivation studies, that they rely on cross-sectional relations between TV exposure and audience outcomes. In our time series analysis, annual changes in TV content over time were unlikely to be related to fear of crime due to demographic shifts. Thus, the associations we observed between changes in TV content and public fears of crime are more likely attributable to TV violent content than to demographic shifts or changes in viewing habits in the population. We cannot rule out the potential influence of third variables, but the study model controlled for national crime rates that were also linked with fear as mediated by perceptions of local crime prevalence. Furthermore, the study provides a stronger test than many cross-sectional studies that have controlled demographic differences. If fear of crime is more strongly elicited by TV dramas in certain demographic groups, then holding those differences constant may also remove the effects of violent TV programming on those groups. The present study held demographic differences constant while violent programming varied. As a result, cultivation effects may have been more observable.

Our national time series findings may help to resolve some of the debate surrounding cultivation theory started by Doob and Macdonald (1979); Hughes (1980); and Hirsch (1980, 1981). We have been unable to find either a published long term time series analysis of fear of crime predicted by TV violence or a mediation model of national violent crime rate and the perception of crime prevalence. Thus, this study employs a novel method to test predictions from cultivation theory and finds support for one of its basic proposals. It also suggests a mechanism that can explain its effects without relying on the creation of a mean world.

5.1. Strengths and Limitations

The study's strengths reside on its use of a large content analysis of popular TV programming with 475 hours of commercial free TV episodes since the early 1970's. The surveys conducted by Gallup represent interviews with over 27,000 persons. Our ability to align TV programming with nationally representative survey data enabled us to evaluate changes in national exposure to violent TV content after controlling for national violent crime rates (Gallup, 2010a). Thus, despite only being able to study 25 years of Gallup surveys, the database represents a considerable body of survey and programming information.

This study has limitations as well. It did not sample TV shows less popular than the Nielsen ranked top 30, non-dramatic genres, cable TV, or YouTube. The sample was also limited to shows that were available for pur-

chase. Nevertheless, because these shows were available years or decades later, they were likely very popular programs when they originally aired. In addition, because many of the shows remained popular over time, the same audiences likely saw them year after year.

TV violence in this analysis was based on the average annual rate of TV violent sequence counts per episode hour and did not differentiate between violence that was initiated or received, or was in self-defense or not justified. It also did not control for trends in national and local news reporting of crime that may have influenced reports of fear.

Our analysis assumed that annual changes in TV violence were not affected by public fear of crime, since it seemed unlikely that changes in population fear influenced contemporaneous changes in the amount of violent TV programming. Nevertheless, our analysis is still dependent on contemporaneous correlations that are not as conclusive for drawing causal conclusions as lagged effects that provide evidence of temporal precedence. Indeed, only carefully controlled experiments with long-term exposure to variation in violent TV content could clearly test the causal relation between exposure to violent TV drama and fear of crime. It is also necessary to note that the ecological fallacy warns against generalizing from group to individual behavior. There could be segments of the population that were not affected by violent TV programming or that responded in other ways. For example, a large gap has been found using the survey item regarding fear, with U.S. women much more fearful than men (Toch & Maguire, 2014). Finally, we were limited to using the longest available measure of fear that was available for the four decades of the study. Future research should address how audiences respond to fictive TV violence using multiple measures of fear evaluated among different audiences across age, gender, education, racial-ethnic identity, and socioeconomic status, while controlling for their reported media consumption and political attitudes and behaviors.

6. Conclusion

The study result that annual change in TV violence, after controlling for the violent crime rate and perceptions of crime prevalence, was significantly related to change in national fear of crime from 1972 to 2010 is consistent with Gerbner's explanation of the central tenet of cultivation theory. Indeed, he argued that the most important problem resulting from frequent exposure to TV violence is not the direct imitation of violence by viewers, but the gradual increase in fear and mistrust that promotes authoritarian governance. A challenge for communication scholarship is to better understand cultivation processes in the 21st century's rapidly changing technology-driven multiple media environments.

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Conflict of Interests

The authors declare no conflict of interest.

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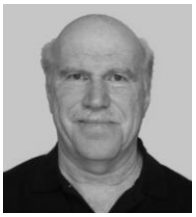

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Article

Between Objectivity and Openness—The Mediality of Data for Journalism

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Abstract
A number of recent high profile news events have emphasised the importance of *data* as a journalistic resource. But with no definitive definition for what constitutes data in journalism, it is difficult to determine what the implications of collecting, analysing, and disseminating data are for journalism, particularly in terms of objectivity in journalism. Drawing selectively from theories of mediation and research in journalism studies we critically examine how data is incorporated into journalistic practice. In the first half of the paper, we argue that data's value for journalism is constructed through mediatic dimensions that unevenly evoke different socio-technical contexts including scientific research and computing. We develop three key dimensions related to data's mediality within journalism: the problem of scale, transparency work, and the provision of access to data as 'openness'. Having developed this first approach, we turn to a journalism studies perspective of journalism's longstanding "regime of objectivity", a regime that encompasses interacting news production practices, epistemological assumptions, and institutional arrangements, in order to consider how data is incorporated into journalism's own established procedures for producing objectivity. At first sight, working with data promises to challenge the regime, in part by taking a more conventionalist or interpretivist epistemological position with regard to the representation of truth. However, we argue that how journalists and other actors choose to work with data may in some ways deepen the regime's epistemological stance. We conclude by outlining a set of questions for future research into the relationship between data, objectivity and journalism.

Keywords
data; data journalism; mediality; regime of objectivity

Issue
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1. Introduction

The recent high profile success of projects like the Guardian's *Reading the Riots* and the growing legitimacy of independent investigative organizations such as Propublica highlight how *data*—its collection, analysis, and communication—are a major point of interest and concern in contemporary journalism. With no definitive definition for what constitutes data in journalism coupled with the existence of numerous labels for data-related journalistic practices (such as data journalism (DJ), data driven journalism, database journalism, computational journalism, data visualization) understanding data's place within journalism is problematic.

The starting point for this paper is that as the sophistication and accessibility of digital technologies for the collection, analysis and dissemination of data have become more widespread, so have the number of projects that turn to data for the production of news. Data's increasing importance within journalism raises a

number of interesting questions and challenges, not least of which are the implications such data has for objectivity as one of the paradigmatic concerns of contemporary journalism. Data's meaning and value arguably stems from the extent to which it is said to be objective. But if objectivity's place within journalism is itself the source of much debate (Maras, 2013; Hackett & Zhao, 1998; Donsbach & Klett, 1993) then we must also question how data is imbued with the quality of objectivity within journalism. Instead of a history of practices like DJ or a sociological analysis of such practices, this paper draws from two different approaches—theories of mediation and journalism studies (especially political economy and media sociology approaches)—in order to question what constitutes data and how the different choices regarding its collection, interpretation and dissemination have implications for objectivity in contemporary journalism. The first part of the paper examines the connection between data and objectivity by focussing on digitally mediated data as an object used by journalists in ways that evoke socio-technical contexts in which objective data is produced—what we refer to as the mediality (Sterne, 2012) of data. The second part of the paper delves into how the political economy of contemporary Western journalism shapes the production of objectivity (Hackett & Zhao, 1998) as a multifaceted regime. This second approach enables us to contemplate the implications that the different facets of this regime might have for data as a source of objectivity in contemporary journalism. In the final section, we put forward future research questions that build on these two approaches.

2. Data's Mediality

The term *data* is frequently applied in journalism literature as a mass noun. The Oxford English Dictionary provides two different definitions of the application of this term:

> a. Related items of (chiefly numerical) information considered collectively, typically obtained by scientific work and used for reference, analysis, or calculation.
>
> b. Computing. Quantities, characters, or symbols on which operations are performed by a computer, considered collectively. Also (in non-technical contexts): information in digital form (OED, 2012).

Both of these kinds of data have historically played a role in journalism. Journalists have long drawn on the outputs from scientific investigations as a resource for the production of news. Similarly, journalists have been developing techniques for using computers to analyse data since the late 1960s and early 1970s like precision journalism (Meyer, 1973) and computer-assisted reporting (Garrison, 1998). A decade ago, scholars like Deuze (2001, pp. 8-9) pointed to the emergence of "open-source journalism" as a potential direction for new configurations of participation in journalistic practices. For Deuze, the Internet represented a new journalistic medium that afforded the opportunity to build communities of information gathering and dissemination similar to those of the open-source software community. Even more recently, Hamilton and Turner (2009, p. 2) defined computational journalism as 'the combination of algorithms, data, and knowledge from the social sciences to supplement the accountability function of journalism'. While similar in many respects to computational journalism, DJ's central preoccupation is how to produce news with data. As Bradshaw (2012) puts it in the introduction to *The Data Journalism Handbook*:

> 'Data can be the source of data journalism, or it can be the tool with which the story is told—or it can be both. Like any source, it should be treated with skepticism; and like any tool, we should be conscious of how it can shape and restrict the stories that are created with it.' (Bradshaw, 2012)

Implicit in Bradshaw's definition is that key aspects of journalistic practice and the values that underpin these practices—how to treat a source, telling stories—remain intact despite the fact that they involve the use of data. Our objective is not to determine to what extent DJ itself represents a genuine departure from its predecessors. Instead, we set out to problematize how practices and values involved in the collection, interpretation, and dissemination of data are mediated through current journalistic practice and values.

Sterne (2012) uses the concept of mediality to examine how things 'evoke a quality of or pertaining to media and the complex ways in which communication technologies refer to one another in form or content' (Sterne, 2012, p. 9) and how these ways are articulated 'with particular practices, ways of doing things, institutions, and even in some cases belief systems'. (Sterne, 2012, p. 10). Building on this definition, we use mediality to ask how journalists treat data in ways that refer to forms or content of other socio-technical contexts. Conceptualising the mediality of data means problematizing how data may at once evoke some of the symbolic and material qualities or practices taken from scientific enquiry or computation as presented in the above Oxford English Dictionary definition while also evoking the qualities and practices of news content produced and interpreted through journalistic forms with all of their political, cultural and technological baggage. Sterne's definition of mediality is useful because it highlights that we are not dealing with a *whole* medium like television, the Internet or newspapers. Data is in some ways both more specific and more ab-

stract than such media. In order to clarify the implications of our chosen approach, we identify and develop three interconnected variable dimensions of data's mediality for journalism.

2.1. The Problem of Scale—Defining the Proportional Relations of Data in Journalism

For Rosen (2013), journalism is a response to a 'problem of scale'. People, as part of a 'self-informing populace', are unable to consider distant current events and so turn to journalism as a way of understanding what is happening in the present-day world. Rosen extends his notion of scale beyond only physical distances to encompass all of the complexity of economic, political and social systems that come with the modern condition: what he terms the 'awayness' of things. The journalist's authority, he argues, stems from being able to claim a special perspective on the awayness of things and then relate this perspective to the public. As Rosen puts it:

> 'I'm there, you're not, let me tell you about it.' Or: 'I reviewed those documents, you couldn't—you were too busy trying to pay the mortgage—so let me tell you what they show.' (Rosen, 2013, p. 30)

Contemporary texts often represent digitally mediated data as part of a similar problem of scale: the coming 'data deluge' (Economist, 2010), 'working with data is like stepping into vast, unknown territory' (Lorenz, 2012), or 'huge tracts' (Arthur, 2013) of data. Digital data's mediality as a large mass evokes the unknown quantity of ones and zeros that are so often used to symbolise the digital. This problem of scale can be used to justify an authoritative journalistic role in which the journalist can answer the public's questions about data. For example, Stolte presents digital journalists as key intermediaries who can tackle 'the sheer scale' of data by making large amounts of it accessible to the public in order to enable this public to 'receive the information without being overwhelmed by it' (Stolte, 2012, p. 357).

But the relationship between data's scale and the journalist's authority is one that needs to be carefully considered. As Webster (2006, pp. 21-25) and Mosco (2004, p. 50) remind us in their critical examinations of digital technologies, problems of scale can often be mobilised as ideological discourses to mask deeper political and social inequities.

For Couldry and McCarthy (2004), differences of scale in the media can be understood as *proportional relations* that make up the different levels of media forms and content. To understand these relations requires that we remain attentive to the multiple ways in which they are brought together. A first step towards such an understanding in the case of data and journalism involves tending to the proportional relations between data and those involved in its production, dissemination and interpretation. For example, in their case study of a series of data-related projects in a Chicago newsroom, Parasie and Dagiral (2013) recount a debate between two groups of journalists regarding how to work with data. The first group of journalists treated the quantities of data as a particular kind of computational problem; a problem that could be resolved by designing the right kind of platforms for accessing and analysing data. These platforms would be designed to provide the public with individualised access to *complete* datasets at a *granular* level, allowing individuals to analyse the data to see how it affected them personally. By contrast, a second group of journalists in the newsroom emphasized the importance of providing the public with inferential statistics based on the journalists' own analysis of a sample of the data; an approach closer to social-scientific traditions of data analysis. This debate between both groups of journalists illustrates two very different perspectives on data's problem of scale, and how to resolve this problem.

The repercussions of changes in scale are not predetermined: how different actors engage in the mediation of different levels of scale are not only potential sources of inequality but also represent opportunities for alternative forms of engagement, for resistance, and for change. Parasie and Dagiral's case study highlight two very different technological and organisational options for defining the proportional relations between journalists, data and the public with very different implications for all three. Our second dimension of mediality turns to the question of how different technological and organisational configurations work together.

2.2. Transparency Work–How the Collection, Analysis and Delivery of Digital Data Work Together as News

To count as news, data must be subjected to processes of refinement. As our second dimension, we use *transparency work* to examine the way in which these processes of refinement are materially and symbolically ordered as part of data's production and reception. In the context of journalism *transparency* refers to making publicly available the sources, interests and methods that might influence the information presented, so that notionally, readers/viewers (as *rational* subjects) can take potential *bias* into account in their own interpretation of the account. In this case, our definition draws from science and technology studies where it is used to describe a 'process in which status, cultural and community practices, resources, experience, and information infrastructure work together' (Star, Bowker, & Neumann, 2003, p. 257). Work to make certain aspects of data transparent, like the transparency of media forms (Bolter & Grusin, 2000) or of information sys-

tems (Star, Bowker, & Neumann, 2003), relies on social and technological standards that may have very different meanings for different people.

A basic example for illustrating transparency work for data is information visualization. Much like scientific visualizations, journalists present datasets in the form of visual diagrams that highlight the insights they wish to communicate to the public. In some cases, visualizations take the form of interactive graphics that facilitate data analysis for the general public. Interactive graphics prescribe a certain way of interacting with the datasets, making it easier for someone who is unfamiliar with data analysis to gain insights from the data. But someone who is able to conduct their own independent analysis of the datasets may interpret these same visualisations as too constraining or prescriptive.

A more complex example of transparency work with data is the provision of *raw data* as an accompaniment to a news story. For example, the Guardian's *Data Blog*[1] gives readers access to datasets online and invites readers to 'download the data' in order to conduct their own analysis. The process of making this data available to the public builds on open source principles discussed below. But this data's 'rawness' is a relative state that depends on its own refinement processes. The way in which journalists collect and format their raw data in order to present it to the public depends on a number of implicit and explicit standards, practices, and values in the same way as with information visualisation graphics. For example, the journalist may decide to clean up or format the raw data before making it available to the public. The difference between data visualizations and raw data is that providing raw data can be interpreted as an invitation to reinterpret or challenge the results of the analysis of a dataset. But while the standards for using data analysis to challenge results may be familiar to those trained in such techniques, it is unlikely to be a set of skills and knowledge that is widely available to the general public.

Transparency work does not only take place between journalists and the public. Producing news items with data also entails refinement processes among journalists. Cohen, Hamilton, and Turner, for example, deem the efforts that go into converting data from paper documents or other primary sources to be the "bothersome impediments of more interesting work" (Cohen, Hamilton, & Turner, 2011, p. 71) that is possible once such primary sources have been digitised and converted into a format that can easily be analysed. Cohen, Hamilton, and Turner recommend developing more accessible methods and tools for journalists who are unfamiliar with data analysis in order to facilitate their work. These platforms would make certain aspects of data analysis transparent to novice journalists.

We recognize that a certain amount of transparency work is, to a greater or lesser extent, always involved in data collection, analysis and dissemination. But considering transparency work with regards to data raises questions for the politics of producing different kinds of transparency, particularly in light of the problem of scale discussed above. What values and objectives inform the decisions regarding transparency work? In the following section, we examine how 'openness', as a set of values based on the provision of access to data, represent a third dimension of data's mediality in journalism.

2.3. Openness: Extending Access to Data

It is said that files saved in the Portable Document Format (PDF) are where 'data goes to die' (Rogers, 2012). Such a claim is arguably exaggerated, but data journalists and programmers base it on the fact that data stored in PDF files are not as easy to access as data stored using other file formats. There currently exists a movement within a number of different institutions that emphasises making data more *open* in part by ensuring that data is not stored in these kinds of formats. A detailed discussion of the term *open data* is beyond the scope of this paper. The history of open data has close ties to the history of computing including software development. Open data's history also builds on the long-established and well-documented academic tradition of peer-review in academic research (for example, see Willinsky (2005) for further discussion). Movements espousing open data often subscribe to a *do it yourself* (DIY) ethos. In the context of journalism, this implies that if a reader is unconvinced or suspicious of the conclusions drawn from the data for a news story, they are given free rein to analyze the raw data themselves and draw their own conclusions. What constitutes open data for journalists is still the subject of debate but here is an example of a definition:

> 'structured primary information from an organization—meaning unfiltered and complete information—provided in an accessible, machine-processible, non-proprietary, license-free format' (Coleman, 2011, pp. 17-18).

Such definitions and the different ways in which they can be implemented as part of journalistic practice have serious implications for how people access data. For the purposes of this paper, we define *openness* as 'efforts to extend access to "data"' (Gurstein, 2011, p. 1). This definition of openness draws inspiration from Gurstein's critical examination of open data. For Gurstein, proponents of open data tend to focus on access over other issues, resulting in an understanding of

[1] See Datablog, The Guardian. Available from: http://www.guardian.co.uk/news/datablog (accessed on 1 January 2014).

data that is isolated from other social and technological processes. While Gurstein does present a solution to this problem (discussed in Section 3.3) the provision of access to data remains a key concern among open data enthusiasts. We use openness to examine the different ways in which this provision of access to data, as a set of values and objectives circulating in (among other contexts) academic research and computer engineering, is articulated in the context of journalism.

As an example, open data initiatives to pressure governments to provide the public with greater access to government data have meant that open data enthusiasts and journalists have historically shared an interest in openness (Cohen, 2011). The recent push by some news media organisations to lay bare their raw data suggests unprecedented moves to editorial openness (Maras, 2013, p. 196) that extend the open data movement to journalism itself. In such cases, disclosure about the sources of data is assumed to improve accessibility, and to enable the public to make better judgments as to the trustworthiness and truth-value of news. Emphasising openness represents a qualitative shift from practices and processes whose apparent objectivity and credibility derives from *authoritative* sources, to practices and processes that ensure the openness of data. But, as we will see in the following section, what constitutes openness for journalism is still contested and may lead to diverging approaches (Cohen, 2011). We stress the distinction between transparent *raw data* and *open data* to highlight these different trajectories in its production and circulation.

2.4. Does Data Make Journalism More Objective?

To date, we have consciously discussed data's mediality in journalism without concern for whether or not these different dimensions have implications for data's status as a source of objectivity. The meaning of data may be familiar in the socio-technical contexts of scientific enquiry and computation but data's production, circulation and interpretation within the context of journalism cannot simply be understood as a straightforward and unproblematic transplant from these or any other contexts. The problem of scale, how transparency work takes place, and how to ensure openness are all examples of variable dimensions of data's mediality: the contingent ways in which data can be used in the context of journalism while evoking qualities and/or practices taken from empirical research or computation. While such dimensions may to a greater or lesser extent implicitly rely on data's status as objective, they do not in themselves ensure objectivity. The implications of data's mediality for its status as a source of objectivity are made all the more complicated if we consider how journalism has its own longstanding methods and technologies for producing objectivity. In the second part of this paper, we therefore turn to a multifaceted journalism studies model of the production of objectivity within journalism in order to reflect on how such a structure may in turn shape data's place in journalism.

3. Data, Journalism, and the Objectivity Regime

Objectivity in journalism, like data, is not a single, *fixed thing* but can include a range of meanings amongst different journalists in western liberal-democracies: in some cases it might refer to how journalists negate their subjectivity, in others it refers to ensuring the fair representation of opposing sides in a controversy and maintaining a sceptical approach towards all sides in a dispute, in yet others it refers to the provision of facts in order to contextualize an issue (Donsbach & Klett, 1993). The historical sources of objectivity, and the periodization of its emergence are much debated (Maras, 2013). The history of objectivity as a key concern in Anglo-American journalism can partly be attributed to the incorporation of technologies like the telegraph and photography into journalistic organisational forms like wire services in the 19th century. Mass-market advertising is also said to have greatly contributed to a declining support for a partisan press in the same period.

In this section, we explicate the *regime of objectivity* as a dominant, yet contested[2], North American[3] journalistic paradigm. As outlined by Hackett and Zhao (1998, pp. 82-88), in their conception, US journalism has been characterized by the hegemony of a discursive 'regime of objectivity' for much of the 20th century:

> 'The idea-complex—and set of practices—of journalistic objectivity…provide *a general model for conceiving, defining, arranging, and evaluating news texts, news practices, and news institutions.*' (Hackett & Zhao, 1998, p. 86)

In Hackett and Zhao's view, it is a polysemic, contested and flexible idea-complex or discursive/institutional regime, with five interacting levels or elements: (1) a normative ideal (concerning both cognitive and evaluative dimensions of news); (2) an epistemology; (3) newsgathering and presentation practices, both reportorial and editorial; (4) a set of institutional relationships, such as to create the impression of journalism's autonomy from illegitimate outside pressures or inter-

[2] As we will show below, the regime's dominance has arguably been unraveling due to different pressures in recent years but it is unclear what kind of formation is taking its place.

[3] While the paradigm is found for the most part in the United States and in Canada, we can also point to parts of Western Europe and historically colonial states such as Australia where permutations of this regime are also found.

nal imperatives (e.g. the separation of 'church and state' between editorial and advertising/marketing departments); and (5) an active ingredient in public discourse. The objectivity regime reinforces the journalist's claim to authority as a legitimate intermediary between the public and world events by presenting the journalist's account as *universal* and *neutral*. But objectivity as constructed through the objectivity regime also sustains what some would call a hegemonic ideology [3] that consolidates power for a few dominant actors, and for conventional social values.

Journalism is currently in profound transition, with multiple paradigms competing with the regime of objectivity, which is arguably on the wane[4]. However, digitally mediated data represents at once an opportunity for positive changes to journalism's objectivity regime and a risk that new inequities will take shape or established ones will be reinforced. It is therefore essential that we consider how the different facets of the objectivity regime produce objectivity in order to begin to consider how such structures may enable or constrain the meaning of data.

3.1. Data and the Objectivity Regime's Normative Ideal

The normative ideals of the objectivity regime prescribe certain traits to objectivity in journalistic practice: detachment, impartiality, avoiding personal biases and interests, etc. (McQuail, 1992). We find that these and similar traits still apply to DJ including originality, independence, statements grounded in facts that are verified by journalists (Daniel & Flew, 2010: 187), the criteria of utility, reliability, trustworthiness (Daniel & Flew, 2010, p. 189) and scepticism (Bradshaw, 2012). Data provides a factual basis for analysis, attempts to minimize the risks of incorrect reporting (Hamilton & Turner, 2009), and represents the potential to counter the influence of public relations. The same 'fundamentals' of journalism are in play in DJ literature as they have been for journalists in the objectivity regime: editorial decision making, fact-checking, ethics, storytelling.

In some respects, data journalists' push for greater openness de-emphasizes certain aspects of what used to be an important form of social or cultural capital for journalists—their relationships with individual sources, their Rolodex (a pre-internet metaphor) as a secret treasure chest of authorities or whistle-blowers they could employ to enhance their professional capital, and credibility. But data also depends on a greater emphasis on certain well-established ideals of the objectivity regime such as accountability. Traditional news media achieved this ideal through practices such as editorial corrections of factual errors, the interventions of ombudsmen and publication of readers' responses to stories. One of the ways in which data can be used to ensure greater accountability is through greater openness afforded by giving the public access to raw data. This type of openness draws on normative ideals from sources outside journalism and adds new ethical touchstones by enhancing the perceived validity of journalists' truth claims. The danger in such a development, however, is that it may further absolve journalists from taking responsibility for what McChesney calls the 'inescapable part of the journalism process' (McChesney, 2003, p. 302), namely deciding what counts as news. In cases where the public is only given access to raw data and the means to analyse it without the journalist's explicit claim of what is significant about this data, the journalist is effectively offloading the responsibility of understanding the data's significance onto the public.

3.2. Data and the Objectivity Regime's Epistemology

Part of the objectivity regime thesis posits that contemporary journalism, particularly as practiced in Anglo-American liberal democracies, depends on a compromise between a positivist faith in facts, and an emphasis on balancing various points of view that implies an epistemological position of conventionalism, one that asserts the incommensurability of conflicting discourses (Hackett, 2008). At first glance, data journalists may seem to challenge positivism by taking a more conventionalist epistemological position with regard to the representation of truth. The truth-value of a story no longer depends exclusively on the stance of an individual reporter as an independent, neutral, detached, skilled observer. The collection and analysis of data in some DJ projects constitutes a collective enterprise where data collection is crowd-sourced and the analysis is participatory (for example, the Guardian's *Reading the Riots*). In such projects, news becomes iterative and dialogic: the data co-exists with the story, alongside it, and new insights gleaned from its analysis have the potential to modify the story.

Participatory forms of DJ are similar to other forms of online journalism in that they suggest a kind of postmodernist approach where journalists and the public create reality through language and interactions thereby transforming notions of truth seeking in journalism: participation and involvement trump distance and detachment (Maras, 2013, p. 195). However, the ways in which data journalists implement openness

[4] "The current status of objectivity in journalism is complicated. In the US, objectivity was a characteristic of journalism's mid-20th century "high modernist" period, one that has arguably been eclipsed since the 1980s by a "postmodern" paradigm characterized by a multichannel mediascape, profit-oriented conglomerate ownership, deregulation, the commodification of the public sphere, the displacement of "serious" news by infotainment, the unfolding impacts of the internet, and an epistemological relativism that rejects the possibility of objectivity." Hackett (Forthcoming)

may in some ways deepen the regime's positivist epistemological stance. As noted above, the provision of raw data is used to increase the perceived validity of truth claims by basing them on methods imported from scientific research and computing. That importation is an important aspect of data's mediality within journalism, and heightens the impression that the story being told is in principle empirically falsifiable (i.e., testable against empirical evidence). Just as part of the objectivity regime's epistemology was indicative of modernist journalism, data journalists' commitment to facticity means that they reproduce the incumbent *news net* (Tuchman, 1978): reality can be described through careful, systematic analysis of data.

For Simon Rogers, the Guardian's former editor for the Data Blog and a major figure in DJ circles, the implications of this implementation of openness for epistemology remain consistent with established journalistic tradition as long as such implementation entails giving the public as much detail about the provenance of the data used to produce a news story:

> 'Data can be as subjective as anything else, because the choice of some types of data over others, or choice of stories, is based on my prejudices. But we have to try to be objective. There is a purity of reporting to it that is quite traditional. We put caveats in our stories about the data: Who gathered it? What do we know about how it was collected?'[5]

Others see in DJ an opportunity to improve data collection by official institutions through a combination of fact checking data and *watchdog journalism* (Hamilton & Turner, 2009). Greater computational resources for journalists have decreased the cost associated with doing this type of 'watchdog' coverage and increased the level of public interest for political issues 'by personalizing the impact of public policies' (Hamilton & Turner, 2009, p. 12). As digital data becomes more prevalent, journalists should extend their watchdog role to this data, recognizing that faith in official sources of data must be tempered by healthy scepticism and that with raw data must also come better indicators of its quality and provenance.

But journalism itself is not as good at extending this watchdog role to its own work with data. Implementing checks on the collection and analysis of data as part of exercising a healthy scepticism towards data relies on the very kind of social scientific epistemological traditions and expertise that are currently being challenged by programmer-journalists. It seems unlikely that reliable indicators of quality and provenance will consistently be put in place when we consider the rather limited extent to which journalists and journalist watchdogs re-examine and correct the use of incomplete or inaccurate data. For example, Messner and Garrison's (2007) review of literature on journalism identifies a considerable amount of warnings to journalists about the prevalence of *dirty data* in datasets and advice on how these same journalists should deal with dirty data when writing a news item. But when the two search for instances of fact checking and/or corrections of dirty data in actual reporting, they conclude that:

> 'The authors are quite alarmed at the lack of attention given to [fact checking and/or corrections of dirty data] in the literature of journalism and mass communication, particularly in the literature of newsgathering. From earlier research about computer-assisted reporting, various conferences and presentations in the past decade and a half, and in discussions with professionals, it was an issue that simply remained below the research radar.' (Messner & Garrison, 2007, p. 97)

Finally, data journalists also run the risk of limiting their caveats to source material and to the values of the author without also including caveats as to the methodological biases and epistemological assumptions embedded in the methods used to gather the data (where *gathering* implies that the facts are lying around waiting to be collected). A simple example of such methodological bias can be suggested by the official categorization of *the unemployed* in governmental estimates of the unemployment rate. Such official statistics exclude those who involuntarily work part-time or who have given up looking for work and therefore are no longer categorized as part of the unemployed portion of the labour force.

It seems unlikely that the objectivity regime's unbalanced stalemate between positivist and conventionalist epistemologies will disappear. One of the questions raised by the use of data in journalism is how such a compromise may be reconfigured—for better or worse—by the different ways in which data is collected, analysed and presented.

3.3. Data and the Objectivity Regime's Practices

Rogers writes that DJ is at its core about 'telling the story in the best way possible' (Rogers, 2011) rather than about flashy graphics or sophisticated interfaces. Rogers [39] goes out of his way in his definition of DJ to establish that it is an extension of traditional forms of journalism:

> 'If data journalism is about anything, it's the flexibility to search for new ways of storytelling. And more and more reporters are realising that. Suddenly, we have company—and competition. So being a data

[5] Quote taken from Robert A. Hackett's interview with Simon Rogers on 29 October 2012.

> journalist is no longer unusual. It's just journalism.' (Rogers, 2011)

Rogers stresses a distinction between thinking about data as a journalist and thinking about data as an analyst. This distinction seems to revolve around the continued primacy of the narrative form in the production of news and of the journalist's role as author of these news stories. Such a view is consistent with the objectivity regime in that the journalist is the one imbued with the knowledge and skills required to separate *fact* from *opinion* through the practice of news reporting. Contemporary journalists have developed design and storytelling strategies for producing interactive news items based on data visualization that ensure the kind of *narrative control* supposedly ceded to the reader because of digital media. According to Segel and Heer's (2010), analysis of a sample of different kinds of narrative visualizations that include DJ news items:

> 'Generalizing across our examples, data stories appear to be most effective when they have constrained interaction at various checkpoints within a narrative, allowing the user to explore the data without veering too far from the intended narrative.' (Segel & Heer, 2010, p. 1347)

Both Roger's definition of DJ practice and Segel and Heer's insights into storytelling techniques with data raise the question of how different techniques for the provision of openness in DJ can co-exist with transparency work for data: how to extend *access* to data while also making the insights gained from data analysis *accessible*? Gurstein suggests that while considerable good has come from (and may continue to come from) open data movements, how its proponents choose to pursue its implementation may have unintended consequences that lead to greater inequality. His critical examination of the open data movement leads him to conclude that disparities are appearing between those with access to the right kinds of technology and the knowledge to use such technology and those who do not have such technologies and/or knowledge. So while data may be open, how different actors can engage with open data varies considerably:

> 'Thus, rather than the entire range of potential users being able to translate their access into meaningful applications and uses, the lack of these foundational requirements means that the exciting new outcomes available from open data are available only to those who are already reasonably well provided for technologically and with other resources.' (Gurstein, 2011, p. 2)

For Gurstein, the processes of interpreting data and subsequently being able to make 'effective use' of this same data are just as important as ensuring access to data. He concludes that any critical analysis of *open data* has to involve questioning how and under what conditions data is contextualized and given meaning (Gurstein, 2011, p. 4). In other words, storytelling with data or providing access to raw data cannot be understood in isolation from how those stories or that access are interpreted and in what way those who interpret the data are able to incorporate it into their lives.

One way to connect access to data with its interpretation and use is to align journalistic practice with open data movements that support a DIY approach to data. This realignment could be consistent with the current shift away from journalists having complete authority over the storytelling process and towards what Rosen (2006) calls 'the people formerly known as the audience' via crowd-sourcing of data analysis and discussion forums (Rogers, 2012). In such cases, the journalist's role shifts to performing more administrative tasks surrounding the provision of access to data such as *curating* data, managing discussion lists, determining which of multiple blog contributions go to the top, and shaping stories into articles that span more than one publication/edition. At its best, curating data can prove to be a positive solution to the problem of scale by directing audiences to the best datasets and educating them in their use (Daniel & Flew, 2010, p. 190). At its least, curating data can simply be a euphemism for the management of data without analysis as discussed above.

Another way to connect openness with the interpretation and use of data may be by providing *context* for a news story. Journalists can use data to introduce more background to stories by taking the focus away from timely events towards providing greater information related to the reported event, but which lies before, after or outside the event itself. Under the strictures of objectivity in US journalism, reporters tend to shy away from providing background context partly from fear of accusations of bias: sticking to the *facts* that journalists observe themselves or that can be confirmed by *authoritative* sources, can be seen as examples of *strategic rituals* (Tuchman, 1972). Journalists can use data in this way to move beyond the objectivity regime's event- and official-orientation. But to the extent that data journalists fail to question the assumptions embedded in datasets, or to recognize that *any* selection of a relevant context is inherently political, they may unwittingly reinforce the *frame-blindness* (Maras, 2013, pp. 66-70) of the objectivity regime.

Concerns for connecting the provision of access to data with its interpretation and its effective use are not limited to the relationship between the journalist and the public. Journalists face the same challenge in their own work. We must question to what extent journalists are able to draw attention to the flaws and particularities of the data they use to tell news stories and to

what extent they recognize and respect the limits of data's portability beyond one specific news story. Many of the recent high profile examples of DJ, such as the projects listed on the Guardian's Data Blog, are the result of journalists taking a customized approach to the collection of data and its analysis based on the specific story being covered (Rogers, 2010). It is unclear whether such efforts can be maintained as data becomes more closely integrated into the everyday practices of news production. As the production and circulation of data become increasingly automated, relying less on offline sources, and as sources of open and/or raw data become more readily available, the participatory and bespoke (customized) approach to data gathering for individual projects may be undermined.

The stakes of the extent to which journalists are equipped and given the time to interpret and effectively use data become all the more evident when we take into account that not all types of journalism deal with the same kind of data in the same way. For example, some researchers have set out to develop a 'reporter's black box' (Cohen et. al., 2011, p. 4) that would provide journalists with a set of standard query templates for working with data—a standard set of questions that journalists could use to analyze a dataset. Such standard queries are deemed particularly useful in journalistic practices that produce consistent kinds of queries from familiar datasets such as in the case of sports journalism. But standardized queries may be more problematic in the case of investigative journalism. The technical knowhow and expert knowledge needed to conduct research are perceived to be a major concern among journalists (Cohen, Hamilton, & Turner, 2011, p. 70) and in such cases, the provision of user-friendly platforms for the production of news represents an interesting business proposition.

The pace and direction of technological change also suggests that the connection between narrative and objectivity embodied in journalists' practice may undergo even more dramatic changes in the near future. Current innovations in the automation of computational processes such as online searches lead some observers to consider replacing the journalist with computational resources:

> […] 'eventually some watchdog articles will be written by algorithm in a way that would allow readers to see a customized, personalized article about how a policy problem is playing out in their neighbourhood, block or lives.' (Hamilton, 2009)

3.4. Data and the Objectivity Regime's Institutional Relationships

The objectivity regime is embedded within a set of interdependent institutions that tend towards its reproduction. These institutions include legal guarantees provided by the state, institutions of higher learning that contribute to journalism as field of knowledge and structural arrangements within news organisations such as the separation of marketing functions from editorial functions. Much of the current literature on DJ is written from an internalist perspective (Anderson, 2013, pp. 2-5) in that it is frequently presented by proponents from within journalism as a way to potentially *save* it from its current state of declining credibility and economic disinvestment. It would therefore seem that data is unlikely to be used to disrupt existing institutional relationships so much as to improve and strengthen them by, for example, identifying viable business models. It is therefore of vital importance that we question to what extent the variable dimensions of scale, transparency and openness for data develop within the institution of journalism but also within related institutions like commercial enterprises and governments.

Data journalists' ties to the open data movement can in some ways serve the commercial interests of media corporations, but in a new context. Historically, the material interests behind the objectivity regime included the interests of advertisers and commercial media in generating and capturing the attention of new broad audiences in the era of the emergence of mass marketing. Other factors included the political interests of media corporations in deflecting political demands for government regulation of newspaper monopolies that were emerging by mid-20th century and in managing the media/state relationship more broadly. Also served were the occupational interests of journalists in enhancing their claims to *professional* status via the specialized skill of objective reporting (Hackett & Zhao, 1998, pp. 60-81). Similarly, in the 21st century, collecting and interpreting data helps journalists adapt to global capitalism's information flows and to harness the potential to monetize both databanks and data analysis apps (Daniel & Flew, 2010, p. 191). Lorenz (2010) points to examples such as the *New York Times*' custom search platform for finding and purchasing a home. DJ can help news organizations to brand themselves and to restore audience and popular trust in journalists through the provision of open data as a service and to enhance journalists' professional status in the new role of its curatorship.

Journalism in Western democracies is legally and politically protected in ways that are not available to other types of organisations or disciplines (for example, see Westrin and Nilstun (1994) on a comparison between journalism and epidemiology and their common remit to access and publish findings from private data). Such protection extends to data journalists because, in line with the objectivity regime, journalism presents itself in terms of altruistic values such as the democratization of information. This legal protection may enable journalists to assist open data movements. Open data

movements have encountered considerable resistance from local and national public institutions (see Parasie and Dagiral (2013) for an example of local resistance to open data in the Chicago Police Department). In a recent case study of the Obama administration's plans for a national US Open Data Program, Peled (2011) shows how various departments of the US government responded to requests to implement an open data policy by various resistance tactics. Peled concludes that individual departments perceive each other to be in inter-bureaucratic competition and use data as a source of leverage between departments. An open data policy undermines such inter-departmental horse-trading. The Obama administration's early attempts to implement an open data government program failed from a civic perspective because the data made available online was considerably limited in scope and not regularly updated.

By striving for greater openness, data journalists may impose greater scrutiny of government and how it produces and provides data (the watchdog role mentioned above). But some see conflicting professional objectives between journalists and proponents of open government data. Cohen (2011), for example, identifies a potential rift between people who want to produce *studies* and people who want to write *stories*. She recognizes that no matter how much people working to improve the provision of open data in government believe they are only working to increase levels of collaboration with civil society, the collection and provision of data can always be used to serve certain political or ideological interests. In such cases, it is in the journalist's interest to scrutinise and challenge such data, no matter how *open*. In such cases, proponents of open government data and journalists may find themselves in opposing camps.

Data collected independently by journalistic institutions represents another way in which data may challenge established institutional power, especially the dominance of official sources. Any particular spin on political events, for example the recent MPs' expenses scandal in Britain, can potentially be challenged by an alternative story emerging from data analysis. Collecting data may also raise the possibility for new kinds of partnerships between news organisations and other kinds of informational or media organisations as a means of providing goods and services through databases and digital platforms (Daniel & Flew, 2010, p. 191). What remains lacking at the moment is a critical discussion of the ethical implications of journalistic institutions collecting and storing data and what such potential collaborations may have for journalistic independence and public service.

The emphasis on open data for DJ practitioners does not necessarily mean that incumbent institutions will lose such a status. Nor does it mean that journalistic institutions are impervious to challenges from new actors. Broader civil society movements for *open government* in some respects can be interpreted as the other side of the DJ coin. But the issues raised by open data movements also come bundled within broader debates concerning intellectual property rights regimes and the commercial interests for open data that include powerful actors like Google and some Internet service providers.

The recent case of the 2010 Wikileaks episode and the differential treatment accorded to its participants suggest the uneven power relations involved in forwarding the agenda of journalistic openness. Wikileaks' original 'pure leak strategy' (Beckett & Ball, 2012, p. 154) of providing all of the raw data from their Afghanistan war logs online in an attempt to provide maximum openness was met with little public fanfare. It was only once Wikileaks collaborated with *The New York Times*, *The Guardian* and *Der Spiegel* to provide a more refined analysis that the data started to gain public attention. Subsequently, Bradley Manning (now known as Chelsea Manning) was sentenced to 35 years in prison in August 2013 for leaking classified documents to Wikileaks. By contrast *The New York Times*, *The Guardian* and *Der Spiegel,* having helped to publicize the leaked material, are not facing legal retribution (Abrams & Benkler, 2013) and arguments are ongoing as to whether or not similar relative legal impunity should be afforded to Wikileaks which functioned as a middleman between Bradley and the news media.

3.5. Data and the Objectivity Regime as an Active Ingredient in the Public Discourse

This final dimension to the objectivity regime recognizes that the expectations of objectivity and the associated language for evaluating news are actively circulated among members of the public, where they shape and are shaped by the everyday lives of those who engage with news reports.

Earlier sections addressed the importance of ensuring that data's openness is not understood in isolation from the ways in which said data is interpreted and used by the public. It is therefore of vital importance that we question to what extent data is part of public discourse regarding journalism and its objectivity. For example, to what extent is the DIY ethos of open data something that is reflected in the way people engage with news reports in their everyday lives? For Natalie Fenton (2010, pp. 559-560) multiplicity and polycentrality represent characteristics of online journalism that enable journalists to offer a view of the world that is 'more contextualized, textured, and multidimensional'; a view that may challenge traditional objectivity by enabling readers to compare reports and access sources. On the other hand, she warns that behind such multiplicity can be more of the same: sophisticated marketing and commodification. Political discourse

can be assimilated into entertainment, public discourse can be further homogenized, the concentration of ownership increased including the control of search engines. These risks of marketing and commodification are undoubtedly relevant to data's future place in journalism and in the wider public discourse about journalism.

The question therefore remains to what extent, and in what ways, does the public actually access, interpret and use journalistic data? In our review of the current literature, we did not encounter any material that addresses the variety of ways in which the public actually engages with data beyond the occasional DJ projects that rely on crowd sourcing data.

4. Data and Journalism: Questions for Future Research

This paper represents a critical interrogation of data, its place in journalism, and a call for scholars to fruitfully bring together insights from mediation theory and critical political economy and sociology of journalism to the study of data for journalism. We do not raise these issues in order to reject or undermine practices like DJ. Rather, we recognize data's complex and contradictory potential within (and beyond) the journalism field—a potential that in certain respects *does* have significant democratizing implications. Our objective in introducing the three variable dimensions of data's mediality and how data relates to journalism's regime of objectivity is to underline how data's future is contingent upon decisions regarding what constitutes data and the consequences of such decisions for how objectivity is produced through journalism as a set of ideals, epistemologies, practices, institutional relationships, and public discourses.

Such a future could entail placing DJ in relation to historical precedents and contemporary developments within journalism such as peace journalism (Lynch & McGoldrick, 2005). DJ could improve approaches to peace journalism by strengthening the empirical basis of the cultural and structural violence that (Peace Studies scholars argue) underlies the physical violence of armed conflict; it enables researchers to more adequately explore the causes and consequences of violent conflict. For example, one could explore statistical linkages between unemployment, rising food prices, or evidence of government corruption, with outbreaks of civil unrest, like the so-called Arab Spring. Or explore the hidden costs of war (another injunction that peace journalism theory suggests for conflict reporting) by, for example, correlating spikes in domestic violence and divorce rates with the return of soldiers from war.

Based on the approach we have devised for this paper, we also suggest two sets of questions for future empirical research:

1. To what extent are roles for the collection and presentation of data within journalistic institutions consistent with those previously developed within the objectivity regime? In what ways do the definition and execution of such roles remediate practices and discourses found in scientific research?

2. How is data part of public discourse regarding the objectivity of news? In particular: (a) how does public discourse on data in journalism mediate cultures of computing; (b) how does public discourse on data in journalism mediate cultures of scientific enquiry?

Data's objectivity, when collected, interpreted and disseminated by journalists, cannot be taken as a given. Data is technologically, organizationally and symbolically mediated through discourses and practices for its collection, representation and dissemination that evoke empirical research or computational processes as well as aspects of journalism. The inherent facticity of data is itself problematic. This paper was not written in order to resolve such a problem but as a call for tempering the claims made for data in the context of journalism, for interrogating the assumptions that come with data as an object circulating between multiple contexts, and for a more systematic enquiry into the unstated interests that such data, as a source of objectivity, serve.

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Article

The Nanking Atrocity: Still and Moving Images 1937–1944

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Abstract
This manuscript investigates the facts of publication of the images of the Nanking Atrocity (December 1937–January 1938) in *LIFE* and *LOOK* magazines, two widely read United States publications, as well as the Nanking atrocity film clips that circulated to millions more in American and Canadian newsreels some years later. The publishers of these images were continuing the art of manipulation of public opinion through multimodal visual media, aiming them especially at the less educated mass public. The text attempts to describe these brutal images in their historical context. Viewing and understanding the underlying racial context and emotive impact of these images may be useful adjuncts to future students of World War II. If it is difficult to assert how much these severe images changed public opinion, one can appreciate how the emerging visual culture was transforming the way that modern societies communicate with and direct their citizens' thoughts.

Keywords
Nanking Atrocity; impact of still and moving images

Issue
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1. Introduction

In 2008, the seventieth anniversary of the Nanking Atrocity passed with limited international interest in the event that marked Japan's depredations in the Chinese capital city of Nanking (Nanjing) from December 1937 through January 1938. The event, including the wholesale murder of captured soldiers and civilians, and the rape of thousands of women, later became iconic as the "Rape of Nanking". This study will investigate the facts of publication of the images from Nanking in the weeks and months following the event, in *LIFE* and *LOOK* magazines, two new United States photograph journals competing with each other and with the newsreels. They claimed a readership of seventeen million and one million respectively. The photograph journals' images were Japanese soldiers' 'souvenir stills', not meant for publication, but smuggled out of China to the West. Several western observers in the International Safety Zone filmed evidence of the human tragedy surreptitiously, but their images did not appear in newsreels until several years later. The publication of the still and moving atrocity photographs were a kind of novelty, signaling a shift in what public decorum would now tolerate. A few years later, the bloodbath of World War II achieved a new reality. As Susan Sontag generalized, photographs were a species of rhetoric that reiterated, simplified, agitated and created an illusion of consensus. Their daily pervasiveness during the conflict perhaps began to dull, if not corrupt the senses leading to our contemporary world of image saturation that Sontag believed diminishes morality and even numbs viewers to the point of indifference. If brutal images from Spain's civil war had begun this decade's cascade of horror in 1936, the Nanking images elevated shock effect. Incidentally, they helped to sell millions of magazines (Sontag, 1977). Sontag extended these thoughts in a provocative article in 2002 (Sontag, 2002).

By the 1930's photo-magazines were recognizable adjuncts of the news business in Europe, the Soviet Un-

ion and the United States. Two features about them are striking:

Photographs dominated their pages and the stories were generally simple or captions alone. They appealed to a readership that was, as an aggregate, young and more inclined to learn from pictures than from written sources. Second, these media tended to serve as mirrors and reinforcements of the dominant ideology of the country of origin. In Britain, for example, *Picture Post* came into existence in October 1938 and under the editorial guidance of Stefan Lorant and Tom Hopkinson, devoted itself to reflecting the national mood as the economically depressed nation slid toward the precipice of war while also appealing to the perennial whimsies of a young generation (Hopkinson, 1970). Its picture stories combined social comment with reportage to promote a kind of left-liberal humanitarianism to which the establishment had to adapt. Importantly, it introduced 'new ways of seeing' derived from radical publishing in Europe into the commercial culture that appealed to a new and growing audience. The multiple characteristics of picture magazines was their reductive simplicity, emotional appeal, and yet serious intent to inform. In the United States, *Life* and *Look* magazines shared these values as business ventures trying to build a readership of millions and to compete with newsreels to deliver the visual rhetoric of a world in action. Of course there were exceptions to the *Life* and *Look* approach. For example, Agee and Evans "Let Us Now Praise Famous Men", originally produced for *Fortune* magazine with governmental financing, was unique in its even-handed grappling of what Agee called the "cruel radiance of what is" of America's hard edged social realities. It was also reminiscent of the more sober *Illustrated America* and *Harper's Weekly* in the 1890s.

Edward Bernays and Walter Lippmann were influential thinkers in the 1920s who explored the role of public opinion in a democracy. The former was especially important in articulating the rules of modern advertising while the latter believed that in a democracy, an educated elite should direct and manipulate public opinion. Both built upon an existing understanding that emotions kindled by imagery tended to be an effective way to reach the millions of malleable citizens. Lippmann had said it was impossible to credibly inform the masses on important issues and then ask them to decide; decision was the job of the educated elite. John Grierson, a Scotsman from Britain who was studying public opinion in the United States at the University of Chicago, argued with Lippmann and claimed that half the equation was valid: it was possible, he believed, to use the emotional appeal of imagery to educate and motivate the individual in order to give him a the feeling of having a stake in society. Grierson returned to Britain to apply the power of visual rhetoric to documentary film. Besides informing and moving the viewer, he found one great strength of film was its appeal to the young, to the marginally educated, and to those semi-literate who did not read much at all. He understood that the typical citizen was more adrift than not, and that emotional imagery, in the form of the creative treatment of actuality, provided another form of factual education. He claimed the purpose of documentary was propaganda as education; its images could create democratic loyalties and intelligent understanding of the contemporary world. Grierson never denied that given a typical audience, documentary film, photojournalism and newsreel photography all exhibited a lack of intellectual rigor. They tended toward the sensational and sentimental, but those were the elements that impelled millions to act. In the complex world of the 1930s, there was a concerted struggle to use images to attract the loyalties of their citizens (Evans, 1984).

Whether they were images from the Spanish Civil War or Japanese depredations in Asia, the object of the new visual culture was to treat the unimagined experience and to render it emotional. Images of children figured often because they were blameless victims of social circumstances. As we shall see, the photograph of a child casualty in the 1937 Japanese bombardment of Shanghai's railway station evoked cognitive emotional empathy, moral awareness, and identification with alien victimization. That photo, whether candid or arranged, became so iconic, that today it stands as a lifelike sculpture that a visitor sees first when entering the Nanking Massacre Memorial Hall (Figure 1).

Figure 1. Baby Ping-Mei. Source: Karin Doerr.

Because Asia remained an alien bailiwick for western correspondents, there were not many still and moving images that had emerged from China, at war with Japan since 1931. If the American public's reaction to the still photographs from Nanking was generally one of shock, there seemed to be a somewhat indifferent long-term emotional involvement, due likely to inherent western racism or the remoteness of a conflict that was 3000 miles away. Archibald MacLeish once referred to such reaction as "the superstition of distance", being so far away, a viewer might conclude that

violence, lies and murder on another continent were not believable (Stott, 1978). Racism, remoteness, incredulity, and paucity of correspondents are elements that anchor this study of the Nanking Atrocity's images.

As George Roeder Jr. stated in his seminal study of the American visual experience in World War II, it is difficult to assume precisely measurable or predictable effects of still and moving images upon public opinion in wartime America (Roeder, 1993). The same applies prior to the war, although there was significant interest in visual depiction of world events, from Spain's civil war to Japanese militarism in Asia. In January 1938 the American public flocked to see to the newsreel footage of the Japanese bombing of the American cruiser *Panay* outside Nanking. It was a vicariously lived experience, and not long afterward, *Life* and *Look*'s still photographs of the Japanese depredations within the city probably added to growing American outrage at Japan. Linfield embraces the power of photography and takes issue with Sontag's criticism of the medium's deep emotional bite. He also rebukes intellectuals like Barthes, Berger and key postmodernists who probed an image's spectacle, emotion and absence of context. (Linfield, 2010). In the context of the time, emotion triggered moral revulsion and both elements reinforced the humanist western tradition.

Still it took years and actual war for the smuggled Nanking atrocity film clips to circulate in American and Canadian newsreels. In the United States, as part of basic training, millions of recruits saw the *Why We Fight* series in which the virulent phrase the 'Rape of Nanking' became a popular slogan; millions more saw the same series in and out of theatres. In Canada, these and other film images were matched to a caricature of the duplicitous Japanese enemy as individually trustworthy yet collectively treacherous. The residual impact of these and the still photographs that Americans saw cannot be measured scientifically, but in the modernist tradition of moral integrity, their propaganda value was clear. Once war came, the American newsreel treatment of the Japanese aggressors was overtly racist; the Canadian propaganda effort, headed by John Grierson, used actual and manufactured atrocity footage to demonstrate fanatic Japanese militarism in order to strengthen Canadian national morale. The lasting (anti-Japanese racial) impression created by Canadian theatrical newsreels would impel the public, already bitter over Japanese abuse of Canadian prisoners of war, to mobilize in common purpose. If one American epithet referred to the Japanese racially as "buck-toothed," Canadians saw Chinese-staged (black propaganda) images of Japanese soldiers attacking women and bayonetting a baby. For both countries, the newsreels' use of gruesome Nanking images accompanied by a cascade of explanatory verbiage and moral invective reflected an informational world where news was as much about emotional imagery as about fact.

As applied to today's geopolitical tensions between China and Japan, images and words continue to resonate regarding events related to Nanking (Fogel, 2000). (If China uses the event to promote nationalism, it simultaneously reins in overenthusiastic activists). The best-selling book by the late Chinese-American author, Iris Chang, echoed the Holocaust as a paradigm of memorial culture, referring to the Nanking tragedy in her title as 'the forgotten holocaust' causing instant controversy for its inaccurate association with the genocide of Europe's Jews (Chang, 1997; Yoshida, 2006; Wakabayashi, 2007). The latter book of contributions by sixteen authors deals with an overview of the event, the debate over victim figures, perpetrators and collaborators, and the ongoing issue of Japanese denial. Its detailed methodology points the way for other researchers to follow. The Japanese deniers' argument is that most Chinese civilian deaths resulted from justifiable legal battlefield actions against unlawful combatants who were armed or had access to arms in the Nanking Safety Zone. They maintain (ignoring the illegal invasion and occupation of China) that no deliberate massacre took place for which Japan must apologize or pay compensation. Wakabayashi's figures of 40,000 to 200,000 victims from August to December 1937 reduce the issue to an argument about numbers. Numerically speaking, the Nanking count of between 40,000 and 369,000 victims pales next to the Jewish losses of between 5.2 and 5.8 million. If the Japanese unleashed deadly weaponry against Nanking's prisoners of war and committed rape and pillage of numerous civilians, the Germans committed wholesale industrial murder against their victims, root and branch. An historical irony is that in1938, LIFE magazine referred to the tragedy of Nanking as a "holocaust", seven years before that word took on its contemporary meaning referring to the judeocide.

In 2007–2008, the Chinese diaspora was reminded of the memory of the atrocity both in print and in three films by Chinese, Japanese, and western filmmakers. These films present the subject from each national optic. (Ho, 2007, *Nanking Christmas 1937*; Mizushima, 2007, *The Truth About Nanjing*; Gutentag and Sturman, 2007, *Nanking*. Ang Lee's (2007) *Lust, Caution* is a romantic drama set during the occupation of Shanghai while *City of Life and Death* by Chuan, (2009) is a mainland China production that is suffused with the violence, death and sexual depredations associated with the Nanking Atrocity.

Debate continues to revolve around Japan's refusal to acknowledge fully and publicly its responsibility as a perpetrator. The impressment of Korean women as sex slaves is now a more familiar issue while Nanking is a less cited symbol of Japanese sexual ravages of Nanking women and the related brutality of its civilians. This may be because none of the world economic powers wishes old wounds to cause a breach in the thrust

of today's consumerist world economy. Besides, China is very reluctant to allow the genie of public anger to percolate through its population, lest it lead to unintended political consequences for itself. This study concludes that the images and doctored footage from Nanking should be included as part of understanding a general cultural shift that accorded visual images a new respect. What remains difficult to gauge is the impact of exposure to these barbaric images. Then, they were part of the need to mobilize public opinion for war. Today, one hopes they will not be used out of context as part of a growing public acceptance of, or indifference to the saturation of obscene images. If employed judiciously and in context, they may lead new generations of students of World War II to grasp the impact of visual imagery on mass populations.

2. Background

Japan had set up a puppet regime in Manchuria following its 1931 invasion. In July 1937, using a skirmish as a pretext to attack Shanghai, Japan launched a full scale invasion of China proper. Nationalist forces under Chiang Kai-Shek fought fiercely, but were defeated by aerial bombardment and superior Japanese troops. Chinese nationalist armies withdrew to the capital of Nanking, slowing the Japanese advance by using a scorched earth policy that left the enemy no food and little shelter, a policy that caused the Chinese civilian population much grief. The Japanese were surprised by the ferocity of the nationalist forces' resistance and vowed revenge. Nanking's pre-invasion civilian population of one million was already reduced by up to three quarters before the Japanese assault by 200,000 troops. When they reached Nanking in December, the Chinese nationalists had laid waste key buildings and moved the capital to Chungking. Chiang withdrew the majority of his troops, leaving 75,000 to defend the city. As the invaders took and sealed off Nanking, 50,000 Japanese soldiers unleashed a campaign of unrestrained brutality. Emperor Hirohito's uncle, Prince Asaka, issued an order, "Kill All Captives". This encouraged lower echelon Japanese officers, short of supplies and anxious to build morale, to issue a policy of "Burn All, Loot All, Kill All".

Unobserved by world media and contradicting their own propaganda about kind Japanese soldiers, Japanese forces engaged in a murderous rampage until the end of January 1938. They sought out and machine-gunned or bayoneted tens of thousands of Chinese soldiers who had surrendered. The victims believed they were to be imprisoned, not shot by gunners hidden behind camouflaged walls. Thousands more civilian males of military age met a similar fate. In the final disgrace, troops raped indiscriminately some 20,000 Chinese women and girls, many of whom they murdered. The postwar Tokyo Tribunal established the "traditionalist" victim total of 300,000 killed and 20,000 raped, figures that have been used ever since. Present research estimates of Chinese murdered vary widely from 40,000 (by Japanese authors) to over 369,000 (by Chinese authors). Rapes are even more difficult to document because of the shame and stigma associated with victims of this crime. Yamamoto (2000) discusses the two approaches that now characterize interpretations of the Rape of Nanking as traditionalist and revisionist. He spends considerable effort detailing extant figures on the killings, but concludes that wide divergences between Japanese and other sources keep from bringing both sides to closure. He spends much less energy discussing the rapes and other civilian depredations than he does arguing about numbers killed. He circumvents the elemental question of Japanese aggression in China. Japan denies responsibility for letting loose and ordering its soldiers to perpetrate war crimes. Choy & Tong (1998) interviewed a number of Japanese veterans who confessed committing war crimes of pillage, rape and murder on orders from their officers. This makes the issue of numbers far less important than the issue of agency. One has only to follow the chain of command to realize that the Rape of Nanking is undoubtedly a war crime that was official (unwritten until documents prove otherwise) policy. Iris Chang transcribed several of these admissions in her essay "The Rape of Nanking" (Barstow, 2000). Similar ground is covered in the docudrama *Iris Chang: The Rape of Nanking* (Pick & Spahic, 2007).

The Chinese death toll debate began in the 1948 estimate of 200,000. This figure has been eclipsed by a recent statistic of 369,366, of which 190,000 were victims of mass killings and 150,000 were victims of random killings including rape. Japanese officer Toshio Ohta discussed body disposal at Xiaguan where 30,000 soldiers and 120,000 civilians including elders, women and children were disposed of. Revisionist scholarship of the 1990s challenged this so-called traditionalist interpretation and cut by more than half the 300,000 plus figure, though the figure of at least 20,000 or more rapes is not challenged.

In collapsing Nanking, journalists Hallett Abend and Frank Tillman Durdin of *The New York Times* reported on the unfolding tragedy on 10–11 December 1937. Their photographs depicted Chinese refugees, some waiting to be admitted to the "safe" International Safety Zone that foreign residents had established. As the city fell, journalists left Nanking to file their stories in Shanghai. They were not allowed to return until the end of January. So there were neither photographs nor western journalists to witness the fall of Nanking on 14 December. In fact, the news focus shifted dramatically on 13 December, when *The New York Times* reported that Japanese planes had attacked the American gunboat *Panay* not far from Nanking, resulting in the loss of several lives. The *Times*' photograph showed the *Panay* in its death throes after its crew and passengers

had abandoned ship. For the next three weeks, the sinking of the *Panay* remained front page news in many U.S. newspapers. The *Panay* story also played out nationally in the *San Francisco Chronicle*, the *Los Angeles Times*, the *Des Moines Register*, the *Omaha World Herald*, the *Dallas News*, the *Little Rock Gazette*, the *Boise Idaho Statesman*, the *Phoenix Arizona Republican* and the *Kansas City Star*.

On 15–17, 19–21, 25, 26, and 28 December, the lead stories in the *Times* dealt with Japan's insistence the *Panay* attack was an error, for which it proffered apologies (and eventual restitution). In the midst of the hysteria about the gunboat, Durdin filed a story from Shanghai on 17 December that news reports of atrocities at Nanking were like "…stories of war hundreds of years ago…when…a conquered city with its helpless inhabitants should be given over for twenty-four hours to the unbridled lust of the victors" (Durdin, 17 December, 1937). He concluded, "[the] terrorized population lives in fear of death, torture and robbery". On 18 December, under the banners "Butchery Marked Capture of Nanking" and "All Captives Slain", he reported the blanket looting and violation of women with a detailed description of Japanese depredations and rapes. He reported on 27 December that chaos and anarchy were facts in Japanese-occupied provinces; the story included a picture of Japanese troops marching to Nanking, but none from the city itself.

On the same day, *LIFE* published a pictorial essay on the *Panay*, using frames from the film that two newsreel photographers, Norman Alley and Eric Mayell, had shot while on board the doomed vessel. The ship sinking was the main story, and absence of dramatic photographs left the Nanking collapse a poor second. In the pre-television age, the public had developed an appetite for the visually stimulating experience of the newsreel (Figure 2).

The next day, the *Times* played up the *Panay* incident not only because American national honor had been compromised, but also because there was a film record of the attack on their neutral ship. The footage was speeding its way across the ocean and continent, soon to appear in newsreels. This raised significant public anticipation and on 30 December, newsreel theatres reported lines around the block. This fed the *Panay* hysteria even more. *LIFE* reported that audiences allegedly broke into repeated applause after seeing the heroism of the ship's officers and civilians. Few knew that President Roosevelt had asked that the most damning footage, showing Japanese planes coming at the *Panay* at deck level, be censored. This was probably because negotiations regarding Japan's willingness to apologize and indemnify the United States were at a critical juncture. The footage was cut. Washington learned through code breaking that atrocities were occurring in Nanking but their source remained top secret. Without newsreel footage and correspondents' confirmation from Nanking, the public remained focused on the *Panay* spectacle. For three weeks, newspapers in the United States made so much of the *Panay* sinking, that the Nanking Atrocity took a poor second in influencing pro-China and anti-Japan public opinion. By November, 1938, United States direct aid to China grew from $20 million to $100 million. As well, national support grew for an embargo against Japan. (Perlmutter, 1998).

Figure 2. Sinking of the *SS Panay*. Source: The Denver Post/ Getty Images.

One can argue that the public's response to the *Panay* sinking took precedence because it was obvious that there was a shared national concern about the fate of one of its ships. It was only much later that stories appeared in mainstream print outlets like *Time*, *Reader's Digest* and *Far Eastern* filed by the western witnesses in the Nanking International Safety Zone. By then, time had diminished the newsworthy immediacy of the event (Brook, 2000). The newsreel footage of the sinking of the Panay is available free online.

Henry Luce owned *LIFE, TIME* and *FORTUNE* magazines. Born in China to American missionary parents, he remained a lifelong champion of his birthplace and was probably America's most cogent pro-China spokesperson. (Herzstein, 2005; Perlmutter, 2007). The Luce press' portrayal of China as victim of Japanese aggression spurred the United States to enact embargoes on sales of critical resources such as oil, which set the stage for Japan's attack on Pearl Harbor.

Luce had launched *LIFE* as a weekly news magazine in November 1936, with a strong emphasis on photojournalism. By 1938, he claimed its circulation was 17 million. With some prescience, a full week before the fall of Nanking, *LIFE* ran a cover picture of a Japanese soldier with a machine gun and the caption "Fatalist With Machine Gun". The issue featured Japan's conquest of Asia, with one story about Japanese soldiers, headlined "Japan's Army Slogs Down Asia on Schedule Time". To a long shot of Japanese soldiers marching, the caption remarked "happy at their work".

LOOK magazine, competing with the more popular *LIFE,* also celebrated America as a middle class experi-

ence. As a general-interest magazine, it cultivated a largely superficial approach to contemporary society, filling its pages with photographs of movie stars and casual or striking events. Because it took months to set up its biweekly issue, on 21 December 1937 *LOOK* ran a photomontage of the August 1937 bombing of Shanghai. It was a tragedy unrelated to the disaster unfolding in Nanking. Using frames of moving picture film shot by Hearst cameraman Wong Hai-Sheng, one shot became one of the most iconic of the prewar period, showing a baby sitting amidst the wreckage of a bombed out Shanghai railway station. (LOOK magazine, 21 December 1937) (Figure 3).

A full description of the photographs and captions follows. Title: "A Chinese Baby Survives an Air Raid", Text: "On August 28, while hundreds of terrified Chinese huddled in Shanghai's South Station, 16 Japanese planes bombed the building. Two hundred were killed. The dramatic rescue of a child survivor is pictured here."; Photo: "Chinese man picks up baby found lying on the railroad track at bombardment of train station in August 1937", Text: "An Infant Survivor of the Japanese bombardment of Shanghai's South Station was found lying on the railroad tracks half hidden under the wreckage. Here a young Chinese man picks up the infant, starts for the opposite platform"; Photo: "Man with baby picking way through wreckage", Text: "The Baby Howls as his rescuer picks his way through the wreckage. When the bombs struck South Station it was jammed with poor Chinese waiting to escape war-torn Shanghai on a train to the south. Two hundred were killed"; Photo: "Man crossing tracks nearing platform". Text: "They Near the Platform…Two squadrons of 8 planes each bombed the station. At the same time, they bombed Nantoa, a native residential section of South Shanghai. A civilian section, Nantoa was totally unprepared for the raid and the planes flew away unharmed after the bombing. Previously the Japanese had announced they might issue a warning if Nantoa were to be bombed, but the actual attack came without warning"; Photo: "Rescuer leaves baby on platform", Text: Rescuer Leaves the Terrified Baby on the platform and returns to the wreckage to help other victims of the raid. Then a child and man approach to take the baby to a near- by first aid station. At the right lies the body of a 14-year-old boy, one of the 15 children found dead in the raid. In bombing Shanghai, Japan struck at China's largest, wealthiest city. Planes also have bombed Nanking, China's capital"; Photo: "A child lies on a stretcher as adult hands tend to his wounds", Text: "Lying on a Stretcher on a sidewalk, the baby receives first aid from a Chinese boy scout…Three weeks later, on the occasion of the Japanese bombing of Nanking, the governments of the U.S., Britain and France sent a note of protest to the Japanese government against the bombing of civilian populations. But aerial raids continue, with an increasing toll of dead. Chinese bombers and gunners, as well as Japanese, have been responsible for some of the deaths of innocent noncombatants—American and European as well as Oriental—in this undeclared war" (International News photographs).

LOOK's account of the barbarity of Japanese aerial warfare shocked the world. An estimated 136 million people saw the shot on newsreel screens or in print. (Fielding, 1972; Jespersen, 1996).

It became iconic for sharing four traits: wide recognition, being a historically significant event, for evoking a strong emotional response, and for enjoying widespread reproduction. (Hariman & Lucaites, 2007)

Time's circulation was 1,000,000. The photo's effect was so powerful that when Madame Chiang Kai-Shek arrived in the United States five years later, a New Jersey homemaker sent her a letter with three dollars to "help the little guy on the railroad tracks somewhere in China".

United China Relief used this iconic image to sell millions of Christmas cards and to raise millions of dollars for Chinese aid. Titled the Ping Mei card, the reverse side read: "This is Ping Mei—a child of China—…he is one of 50 million refugees who desperately need food, clothing, shelter, medical aid". *Time* magazine published it too, while appealing for money and underscoring the common interest and goals shared by the Chinese and Americans.

LOOK's use of emotive captions added weight to the frames of the bombed railway station. Its two-page feature titled "A Chinese Baby Survives an Air Raid" displayed five frames including the above mentioned event with a Chinese rescuer in the image (Figure 4).

A first picture explained the image of a Chinese man picking up the infant lying on the railroad tracks half hidden under the wreckage. A second still showed the man carrying the baby through the wreckage. A third photograph had him crossing the track to a platform while the caption explained the unannounced Japanese attack on this civilian facility. A fourth photograph depicted the infant, an older child standing next to his rescuer, the wreckage, and a dead child lying on the tracks nearby. The caption read: "…a child and man approach (above) to take the baby to a near-by first aid station. At the right lies the body of a 14-year-old boy, one of the 15 children found dead in the raid. In bombing Shanghai, Japan struck at China's largest, wealthiest city. Planes also have bombed Nanking, China's capital". The shameful image of the lone infant victim was evocative propaganda, a picture triggering a natural human response of revulsion. This iconic image helped construct a collective memory about the horrors of Japanese aggression and public discourse revolved around it as the Luce publishing empire helped keep it alive. Of course, the assertion that iconic images dominate public opinion is grounded on the assumption of the importance of individual predispositions and values. (Perlmutter, 1998, 2007; Mitchell, 1994)

Figure 3. Baby Ping-Mei. Source: *LOOK* Magazine.

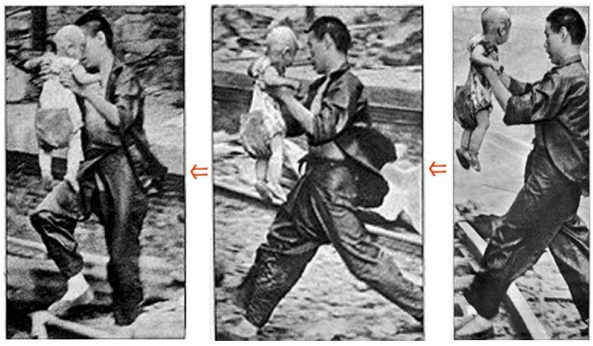

Figure 4. Filmed images of baby Ping-Mei. Source: *LOOK* Magazine.

Figure 5. Rescue of baby Ping-Mei. Source: *LOOK* Magazine.

Situating the photograph in a related, but different context, a final photograph caption, titled "Lying on a Stretcher", depicted the infant on a sidewalk, receiving "first aid from a Chinese boy scout…" The text continued, "three weeks later, on the occasion of the Japanese bombing of Nanking, the governments of the U.S., Britain and France sent a note of protest to the Japanese government against the bombing of civilian populations. But aerial raids continue, with an increasing toll of dead. Chinese bombers and gunners, as well as Japanese, have been responsible for some of the deaths of innocent non-combatants—American and European as well as Oriental—in this undeclared war" International News photographs. (*LOOK*, 21 December 1937)

The undoctored newsreel footage indeed revealed a tragic and hopeful moment, the rescue of a baby after Japan bombed the railway station, intentionally or not. Yet the arrangement of film frames could lead a doubter or denier to claim that perhaps the entire event was staged for the camera or the baby was placed on the track after his rescue and then left to cry. The more significant historical fact remains that this child became the icon that spoke of Japan's careless attack on innocents in a civilian locale. One notes how different the film clip appears compared with the verbiage attached to the still frames.

While it is difficult to measure the impact of this visual news item in isolationist America, a Gallup Poll taken late in 1937 revealed that if the Ohio floods interested Americans most in the preceding year (28.3%), the Sino-Japanese war had practically the same effect (27.8%). By May 1939, seventeen months after the Nanking atrocities, polls revealed that sympathy for Chinese rose from 43% in August 1937 to 74% (Jespersen, 1996)

Having covered the *Panay* story in December exclusively, *LIFE* did not want to be scooped by *LOOK*, so its editors ran a grisly photograph on 10 January 1938: a severed Chinese head with a cigarette in its mouth (Figure 6). The macabre text read in dramatic language that echoed *Time* magazine: "Chinese head whose owner was incorrigibly anti-Japanese, wedged in barbed wire barricade outside Nanking just before the city fell December 14…Quite possibly the worst holocaust in modern history took place behind an official news silence in China's capture capital of Nanking between December 10 and 18…In the indescribable confusion the Japanese shot down everyone seen running or caught in a dark alley. In the safety zone 400 men were tied together and marched off to be shot. A few uninvestigated cases of rape were reported…The Japanese army permitted organized looting by its men presumably because its supplies are getting low…"

The graphic description adds to the disgust this image provokes. Roeder (1993) notes atrocity photographs of Caucasian victims were generally not published. The fact was that once World War II began, *LIFE* was so reluctant to publish images of American dead, that its first such photograph appeared only in September 1943, eleven months after the soldiers depicted had died in battle. *LIFE*'s editorial decision to let the Nanking photograph out reflected a double standard: the Oriental as Other and a feeling that many viewers would consider the sight of Orientals murdering each other as nothing more than a confirmation of Asian barbarism, as opposed to eliciting sympathy, horror or motivating action.

Figure 6. Severed Chinese head. Source: AP Photo.

The article ignored the issue of widespread rape, choosing a photograph of a Chinese father carrying a baby mortally wounded by a Japanese bomb fragment and another of Chinese soldiers and civilians at a city gate with Japanese soldiers hauling carts of looted supplies. Its caption read, "The organized looting of Nanking would indicate that the Japanese Army Commissariat needs food more than prestige". A two-page photograph spread followed, of Nanking refugees on 5 December fleeing on a Yangtze riverboat. The text defended the Nationalists' scorched earth policy as the way to defeat the Japanese (*LIFE*, 10 January 1938).

While both *LOOK* and *LIFE* had published photomontages reporting the military debacle in Nanking, because virtually all correspondents had been evacuated, there were no visuals conveying the scope of violations and breadth of the massacre. *LOOK* ran a feature on war propaganda on 15 February 1938 without defining what constituted war propaganda, good or bad. One page was devoted to Shanghai victims, depicting an old woman and a child, a mother nursing her infant, and another carrying her child through Shanghai streets. The pain of innocent civilians was clear, yet public decorum still demanded avoidance of the obscenity of death and blood.

On 18 April *LIFE* covered the Nanking massacre again with text that informed the American public of the depredations in detail. "These are the same soldiers who through last Christmas and New Year's treated Nanking, China's captured capital, to the most appalling mass atrocity since Genghis Khan. They raped Chinese women by the thousands, bayoneted and burned unarmed Chinese men alive in equal numbers, suffered the inevitable loss of morale. Since then the Japanese have been stopped and defeated by the Chinese" (*LIFE*. 18 April, 1938).

The photograph of Japanese soldiers dozing harmlessly in a Chinese temple did nothing to illuminate or nuance the text. Three weeks later, *LIFE* displayed a series of photographs of Chinese child actors touring the countryside in a propaganda play about Chinese farmers uniting against a Japanese bully. In order to widen the propaganda effect of Chinese resistance, on 16 May, *LIFE* put a head shot of a determined looking Chinese soldier on its cover with the caption "Defender of China".

The accompanying feature boasted (incorrectly) that China was putting the Japanese army on the run and that China's odds to win were better than 50-50.

A powerful addition was a series of ten photographs of Japanese atrocities, frames taken from unattributed film footage. American missionary John Magee had filmed hospitalized victims surreptitiously in the International Safety Zone during the chaos, and fellow American John Fitch smuggled this footage out of China early in 1938. Fitch circulated it to limited American audiences to inform them of Japanese brutality, but exhausted by his efforts, he soon ceased his one-man campaign. Perhaps because events in distant Asia had less resonance than almost daily Eurocentric news, the film lay dormant until 1942, when portions of it appeared in a Canadian newsreel.

George Fitch, who had been in Nanking, smuggled the Magee film out of China and circulated it to many civic groups in the prewar period in an effort to convince Washington to cease selling scrap metal to Japan. Poor health prevented him from showing the film more frequently and he gave it to Arthur N. Bierkle who screened it to groups mainly in southern California. Wider dissemination occurred when *The March of Time* used some of the footage in 1942 and Frank Capra used segments in his wartime series *Why We Fight: The Battle for China,* 1944 (Kuykendall, 1996).

The abovementioned stills were preceded by the text: "The most dreadful picture of the rape of Nanking this amateur photographer could not take. He knew that if he filmed civilians being shot down or houses looted and burned, he would be arrested and his camera smashed. Besides he was too busy, like other foreign missionaries and doctors, saving what civilians he could. But for two weeks he saw an army completely out of control, raping, burning, killing and robbing and destroying without check. He saw a Japanese embassy completely powerless to restrain its own men. In foreign hospitals in and around Nanking he saw hundreds of innocent victims of 'totalitarian war".

Accompanying each photograph was an explanation: 1. Wounded Chinese in primitive basket who was transported to emergency facility. 2. Survivor of family of 11 standing among bodies 3.Wounded woman whose husband and child were killed. 4. Disfigured burned man, tied with 100 others, doused with gasoline. 5. Man with bayonet gashes, who refused to yield his women to Japanese. 6. Woman nearly decapitated 7. A 14-year-old boy beaten with an iron bar. 8. Man (police) struck with axe, recovering in hospital after feigning death by firing squad. 9. A 19-year old woman stabbed 29 times, later had a miscarriage in a refugee hospital. 10. Body left to rot in roadside pond.

Six months after the fact, these were among the most inflammatory photographs of the Asian conflict ever shown to the American public and an early use of the term "Rape of Nanking". These must be added to evidence that was steering (a still largely isolationist) United States public opinion to a stronger pro-Chinese/ anti-Japanese position. The next week, a photograph essay described Chinese troops going into action and achieving a victory; a week after that, war photographer Robert Capa's photographs depicted Chinese civilians witnessing air battles over the city of Hankow. Capa's images of war would become icons of the era even though these photographs of a mourning Chinese mother and the city of Canton under fierce Japanese bombardment were not reproduced in the millions as

were those of baby Ping Mei. The text predicted accurately that these images of dead and wounded and a city destroyed were curtain raisers to the next war in Europe (LIFE, 30 May and 20 June, 1938). *LIFE* had shot its bolt as these were the last Nanking references in 1938. China appeared in eight more issues, but nothing was as sensational as the Nanking photographs (*LIFE* 1, 15, August; 17 October; 7, 14 and 21 November, 1938).

Notwithstanding *LIFE*'s larger readership, in November it was *LOOK* that delivered the most graphic photographs of Japanese outrages (probably in Nanking), including the Japanese bayoneting of Chinese prisoners of war while soldiers watched (Figure 7). The *LOOK* captions were as graphic as the pictures. Under the headline "Killing For *Fun*!" the text read: "Hands Tied, Chinese prisoners are used as live targets for bayonets of Japanese recruits. In the foreground a captive is being tormented. Another (left rear) is being stabbed to death. A third (center) has just received the death thrust. A fourth (rear) is being driven into the pit" (*LOOK*, 22 November 1938). This photo was cropped and published again on 20 December, 1938.

Additional text on the page charged the Japanese with butchering Chinese and burying them alive, merely for amusement, or to inspire raw recruits to kill. The writer explained:

> "We are sending you some pictures of killers in the act of killing. We have plenty of hard boiled correspondents here—Steele of the *Chicago Tribune*, Durdin of the *New York Times*, Beldon, an ex-United Press reporter, Victor Keen of the *New York Herald Tribune*, and others and all of them reckoned the pictures to be the worst things they had ever seen in China, bombing aftermaths and battlefields thrown in. The pictures were taken in Nanking and Soochow recently, that can be judged by the fact that the men are in their summer uniforms. In other words, the killings happened at least six months after the occupation of those cities, when some blood lust, however bad, was to be expected. Thus, these pictures must come under the heading of diversion, or else the executions were staged to put the killer instinct into freshly drafted troops. The Japanese soldier-photographers sent the films to Shanghai for developing and printing. They sent them to a Japanese-owned shop and Chinese employees did the natural thing in exceeding the original printing order. Hence these pictures found the light. These Sons of Heaven went one worse than the Romans who, even if they sent their gladiators into the arena wearing half-inch armor, at least gave their victims a short sword and a sporting chance. As you will perceive, all these Chinese soldiers and civilians were led into the killing pit with their arms pinioned."

Captions explained that these were Japanese recruits at bayonet drill. Using Chinese prisoners as targets was a practice that was considered the proper way to season newcomers. This photograph was among sixteen souvenir photographs taken by Japanese soldiers. Duplicated secretly, these grisly images made their way to the West eventually and the entire set was used at the postwar Nanking War Crimes Trial in Tokyo (1946–1948).

On the following page, a photograph depicted Japanese soldiers watching execution of Chinese men. The caption read: "Rivers Run Red as Chinese are executed beside a stream. Several hundred Japanese soldiers are gathered around, watching the slaughter. The man in the foreground is toppling over dead. His head may be seen in the crook of his arm. The next victim is in place" (Figure 8).

A second picture claimed, "Five Chinese Prisoners are Buried Alive, in this, one of the most gruesome of all wartime pictures. Enraged by the stoic calm with which the Chinese defenders are meeting their attack, the Japanese are more determined than ever to bring them to their knees. This war, now in its third year, is one of the most brutal in history" (Figure 9).

A larger photograph depicted Japanese soldiers with fixed bayonets aimed at two bound Chinese, one tall, one short (Figure 10). The text stated: "The Big Boy Was Beheaded because he stepped on a telephone wire, but the Japanese soldiers spared the life of the little fellow. Because of a shortage of food, many prisoners in the bloody arena are beheaded. Both the Japanese and Chinese face death with a calmness astonishing to westerners"(*LOOK*, 22 November 1938).

Another image of live burials appeared in the journal *Pictorial Review* with a story by Betty Graham titled, "Hundreds of Thousands Slaughtered in New Wave of Bestial Jap Atrocities." The photo and article are reproduced in Young (1997). The best known contemporary written accounts were by Timperley (1938) and Smythe (1938).

Figure 7. Japanese soldiers bayonet Chinese prisoners. Source: Keystone/Getty Images.

Figure 8. Beheading a Chinese soldier. Source: Robyn Beck/Getty Images.

Figure 9. Burying Chinese prisoners alive. Source: Keystone/Getty Images.

Figure 10. Japanese abuse young Chinese captives. Source: *LOOK* Magazine.

The photographs' impact should be included in explaining a Gallup Poll rise in anti-Japanese American public opinion. In spite of the continuing coverage of the China warfront, Henry Luce's *LIFE* directed the majority of its efforts on events in Europe through 1938. If a photo's visual syntax is universally comprehensible, it is difficult to assert what the viewers' possible response to atrocity photographs would have been: perhaps a combination of horror, anger and to a lesser degree in isolationist America, a desire to punish the perpetrators.

Further bibliographic and philosophical speculation about atrocity photographs may be found in the earlier mentioned Sontag article in *The New Yorker.* Linfield (2010) believes that photojournalism has come to play a role in the establishment of human rights legislation. Other approaches to this subject are Messaris (1994), Taylor (1998) and Newton (2001).

A recent historiographical book on the moral, political and educational aspects of the atrocity surveyed Chinese, Japanese and transnational authors, but did not attempt to gauge the impact on public opinion that pictures like these had when circulated in the millions (Fogel, 2000).

Nanking disappeared from public discourse after 1938. Some found the atrocity stories too shocking, believing they were similar to (untruthful) black propaganda of World War I. Others had inverse attitudes: sympathy for the Chinese in Asia and prejudice to Chinese living in their city. Perhaps because of squeamishness about rape and barbarism (Eykholt, 2000), or because they violated standards of decency or because of general provincialism, (Bayly, 2005, 2007; Mitter, 2013) the Nanking horror slipped from public consciousness until America was at war. Japan's attack on Pearl Harbor in 1941 became America's rallying cry (Hotta, 2013). Only then did the 'Rape of Nanking' join wartime iconography. Deluca (2006) argues that in iconic images, iconic becomes transcendent and that images transform rhetoric, politics and history. He cites Walter Benjamin, who said we are immersed in a torrent of imagery that constitutes public discourse. There should be more methodological investigation of how the widely circulated newsreel images of the Japanese attack on Pearl Harbor (especially footage of the exploding battleship *Arizona*) became iconic in convincing the American public to wage the Pacific war as a war of revenge.

In contrast to the United States, Canada had no weekly national pictorial magazine. Its primary national magazine, *Maclean's*, said nothing about the Nanking atrocity. Only in February 1938, did a columnist from London mention Japanese-British relations and a Japanese diplomat's cynical comment referring to *Chinese* aggression in Shanghai. The emphasis of *Maclean's* was exclusively Eurocentric, with a single reference in March to the possibility of war coming across the Pacific (*Maclean's,* 15 February and 15 March, 1938).

Taking *The Gazette* (*Montreal)* as a typical English Canadian newspaper, its coverage of the fall of Nanking had no photographs, was based on the Durdin and Abend articles in the *New York Times* on December 8, 10, and 11, 1937, and only once in December spoke of the Japanese soldiers' "breakdown of discipline." On January 25, in a dispatch from Shanghai headlined "Nanking Captors Run Amok", Abend claimed his sources were based on consular reports whose contents about assaults on women and very young girls were "actually unprintable." A day later, a *Gazette* editorial reiterated the *Times*' story and explained that Japan had forbidden foreign reporters to cable responsible editorial comments. On February 8 an article stated that General Matsui admitted that the army had run amok in Nanking, 'raping Chinese women, shooting private citizens and looting property.' Japanese military authorities' admitted that the depredations were "blunders." As shocking as this singular news coverage was, the Canadian press did not purchase the extant images to follow-up the story. These were the sole references to the Nanking atrocities. In the linguistic and cultural gulf that existed between Asia and Canada, the long history of ethnocentricity and conservatism demonstrated the failure of Nanking to register as anything more than a tragic fact.

3. American Newsreels and Nanking

One of the more puzzling elements surrounding the Nanking Atrocity is the American newsreels' failure to cover the event. Henry Luce's *The March of Time*, the premier newsreel series of its kind, ignored China in prewar issues, other than a March 1936 mention of Japan's 1931 invasion of Manchuria. Typically, its narration used "other" voices to mouth potentially hazardous judgments and one issue commented about militant Japan: "but as Japan's militarists march on behind their Emperor, observers may well wonder what a nation whose war dogs go mad at home might do if allowed to run loose throughout the world" (In December 1937, after the Japanese sinking of the *USS Panay,* nationalist rhetoric inflamed anti-Japanese public opinion.

The *March of Time* series was a barometer of the growing influence of moving images upon news. It became the most widely distributed newsreel in the United States with an audience of 12 million viewers in 5236 theatres in 168 cities. If there was a dearth of, or no footage available, series director Louis de Rochemont used re-enactment freely and made decisions on what to run. Luce intervened rarely, if only to make Chiang Kai Shek a sacred cow (Fielding, 1978).

In a prewar issue titled "Japan-Master of the Orient", the narrator reviewed Japan's "record of shameful unprovoked aggression" without alluding to the horrors of Nanking. Hesitant to condemn the whole of Japan, he stated, "Sober Japanese wonder fearfully how long the patience of the great western nations will brook this lawless threat to the peace of the world." In December 1941 "Battlefields of the Pacific" dealt with Japanese military aggression generally. In fact, between January 1942 and August 1945, the series analyzed the Pacific war in only four issues, *Crisis in the Pacific, China Fights Back, The Philippines* and *Australia at War*. There was only one general newsreel devoted to China. *The March of Time* mentioned Nanking just once in 1942. Ignoring China echoed prewar American isolationist sentiment, owner Henry Luce's *laisser faire* policy toward the series, its Eurocentric outlook, and/or Louis de Rochemont's indifference toward the Chinese. Not surprisingly, after December 1941, American interest in the Pacific revolved around concern for American servicemen exclusively.

In contrast, a sobering treatment of the Japanese enemy occurred in one of the War Department's propaganda series *Why We Fight*, made under the supervision of celebrated Hollywood director Frank Capra. In "The Battle of China" (1944), John Magee's Nanking footage was integrated into Chinese-manufactured atrocity images that had appeared in an earlier Canadian newsreel from the National Film Board. Actuality images included a point blank execution of two bound Chinese prisoners, accompanied by the following narration, "But again, Japanese power was too great and after a battle lasting but a few days, the city fell to the invaders. In their occupation of Nanking, the Japs outdid themselves in barbarism. The Japanese soldiers went berserk. They raped and tortured. They killed and butchered. In one of the bloodiest massacres in recorded history, they murdered 40,000 men women and children…"

The appalling images showed victims who had been stabbed, raped, set on fire or nearly beheaded and the graphic narration spared nothing. "…But those who lived might better have died, for the horror of their twisted and torn bodies was worse than death…This nightmare of cruelty was all the more horrible because it was deliberately planned by the Japanese high command to tear the heart out of the Chinese people once and forever."

One can surmise how engaging and effective this inflammatory imagery was, even if the audience for this film was much smaller than the first film in this series "Prelude to War", which was mandatory viewing for millions of American recruits. Released in the fall of 1944, "The Battle of China" was withdrawn briefly, and then reissued midway through 1945, reaching an audience of 3.75 million. One critic has labeled it Hollywood fairy-tale propaganda that strained credibility because it ignored Mao's communist armies (Communism was still a forbidden word in mainstream American media) and pretended that China was expelling the Japanese invader.

The images trigger revulsion, but the propaganda

objective was to engage viewers to believe that the Chinese themselves would defeat the enemy. The narration boasted, "…And then it happened. That which Sun Yat Sen had dreamed of, that which Chiang Kai-Shek had toiled for, that which is stronger than stone walls that had surrounded China: the will to resist. In their last bloody blow the Japanese had accomplished that which four thousand years had failed to bring into being—a united China…" Accompanying this verbiage were pictures of Chinese leaders exhorting their people, reiterating the message of unity. The race card was played more viciously as the narration concluded that Japan planned to conquer North America and the world when "the Germans would join with their buck-toothed pals coming over from Siberia." If nothing else, racism could be counted on to generate emotion.

4. Canadian Newsreels and Asia

For its part, Canada's military engagement in Asia had proven to be disastrous in 1941 with the fall of Hong Kong and the ignominious surrender of two ill trained and unseasoned Canadian battalions. 557 Canadians perished in battle or in Japanese prison camps (Morton, 1981).

Learning of Japanese brutality toward all prisoners of war, Canada's film propaganda chief, John Grierson, tried to rally morale without stoking racist fires. On the heels of these military fiascos, this was a difficult task, since the Canadian populace largely approved the government's racially motivated removal of Japanese Canadians from coastal British Columbia in 1942 (Granatstein & Neary, 1995).

Invited to Canada in 1939 to establish and then lead the National Film Board, Grierson produced morale building theatrical and nontheatrical short films monthly to inform citizens and soldiers. Emphasizing propaganda as "education", the films systematically shaped perceptions, manipulated cognitions and directed behavior (Grierson, 1946). Film Board productions included four theatrical issues on Asia from 1942 to 1944, *Inside Fighting China*, *The Mask of Nippon*, *When Asia Speaks* and *Fortress Japan*. These newsreels, reaching two million at home and up to ten million internationally, defined Canada's Asian propaganda strategy: to vilify Japanese aggression, not the Japanese people. In July 1942 *Inside Fighting China* showed the film clip of Japanese executing Chinese captives. Lorne Greene, the paternal voice of democracy in Canada's wartime newsreels, asserted soberly that the Japanese were using liquid fire, gas, and bacterial warfare to butcher civilians and soldiers. The narration concluded that China, with communists and nationalists united, was destroying the myth of Nippon the invulnerable. There was no mention of the Nanking atrocity.

Grierson's propaganda approach was ideologically simple: portray the Japanese as individually trustworthy but collectively treacherous. This theme was central to *The Mask of Nippon*, in September 1942. The film began with a crude physical characterization of Japanese soldiers as "little men, quick and wiry; their uniforms slovenly, their faces, even in the heat of battle, tawny masks, black, expressionless". There followed a series of quick cuts to Japanese troops in combat, and a shot of Japanese soldiers brutalizing a crowd of Chinese civilians, with one seizing and rough-handling a mother and child. Then another threw the child into the air as the other's bayonet pitched the child's body out of the frame. There followed clips of bound Chinese prisoners being thrown into a pit, being buried alive, shot at point blank range, and finally civilians dragging a corpse, literally in ribbons. The narration was accompanied by a chorus of female screams, heightened by a high pitched Oriental flute. This was the most atrocity-filled war footage ever shown to Canadians. The crowd scene, the burying alive of prisoners, the woman, and the bayoneted child were in fact staged, taken from a Chinese-made propaganda film and inserted as actuality footage along with segments of the Magee film. Mixing black (staged) and white (authentic) propaganda was allowable if the result articulated the true larger picture. The narration made reference neither to Nanking nor to the provenance of the footage. The evocative impact of soldiers bayoneting the child remained indelible as audiences would have absorbed the whole as "authentic". A number of stills from the staged sequences continue today to be used, (probably unknowingly), as actuality photographs from Nanking. A wall of verbiage, accompanied by stock iconography of Japanese cultural images, reminded the viewer that the enemy was dangerous, but beatable psychologically and militarily. In July 1944 *Fortress Japan* gave an account of the Allied advance on beleaguered Japan, using footage of dead Japanese soldiers to demonstrate that the Allied drive would break Japan's militaristic spirit: "And so, a nation which has ever held life cheap, prepares to practice once again its ancient arts of death…" Tom Daly, the editor, defended these Asia films, noting that they did not substitute emotional racism for a true thing nor did they deny the Japanese were intelligent people. He and director/writer Stuart Legg had no misgivings about using the Chinese-manufactured (black) propaganda to drive home the point. Black propaganda is usually defined as material where the role of the authorities is deliberately obscured, or where it appears to come from the people at which it is aimed. Audiences had no idea that the most brutal images were staged sequences (Figure 11).

5. Japanese Propaganda and the Nanking Atrocity

If Canada's propaganda tried to keep truth as its touchstone, the Japanese had no qualms about employing black propaganda in their sophisticated campaign to deny the Nanking atrocity. The Japanese public learned of the fall and occupation of Nanking through jingoist

headlines and newsreel pictures of the victory parade led by their triumphant general. *The Japan Advertiser* photo section boasted of a barbaric contest between two lieutenants as to who could behead more Chinese prisoners. The tally of 106 to 105 led them to call lightheartedly for a new contest to resolve which of them to name the "winner". After the war, the Allied Wartime Tribunal used the celebrated "killing contest" photo to condemn the two to hanging for war crimes. Many in this culture that celebrated "bushido" never understood why (Figure 12).

Sanitized Japanese newsreels showed troops fighting their way into Nanking, followed by "Bonsai" victory salutes on the city walls. To offset rumors at home of civilian atrocities, Tokyo invited Japanese visitors to tour the city in January 1938. The tourists gave sweets to Chinese children and saw nothing of the ongoing rape and carnage. Japanese newsmen took pictures of "spontaneous" New-Year's celebrations in which gleeful residents also welcomed Japanese soldiers who handed out sweets (Figure 13). Other photographs depicted children receiving care from a Japanese medical doctor.

A few reports had the audacity to declare that the Chinese, not the Japanese, were responsible for the looting, raping and burning. The occupying forces also dropped leaflets promising food and clothing if the Chinese returned to their homes. Thousands of hopeful victims left refugee camps in response to a leaflet featuring a Japanese soldier holding a Chinese child in his arms and distributing rice by the bagful (Figure 14). Black propaganda beckoned Chinese to return to their homes to receive food and clothing. Undisciplined Japanese troops then victimized many who returned.

6. Conclusion

This study has argued that because the world was not yet buried in a surfeit of images, pictures commanded a degree of moral authority. Decades later, a stark postmodernist view articulated by Susan Sontag insisted that photographs from "the slaughter bench of history" do not necessarily induce pathos and sentiment, nor are they the source of ethical and political knowledge. She divorced moral and ethical judgment from the experience of viewing, in part because of the sheer volume of images in our daily lives. In contrast, John Taylor denies that the plethora of images provokes weariness and distrust, claiming instead that the very awfulness of images can and does define civility. Modernism needs reconsideration, he believes, and through it we remember the importance of images' connection to morality (Taylor, 1998). Observing the still photographs and newsreels devoted to Japanese ravages in Nanking, a number of salient points emerge. In the relatively new practice of twentieth century mass spectatorship, there came into being a new public discourse and public sphere in which media-generated imagery operated on both conscious and unconscious levels (Newton, 2001). It is not possible to state with certainty the effect of the images upon the millions who view them, but it is likely that the widely circulated still photographs in *LIFE* and *LOOK* contributed to changing or confirming public opinion about militant Japan.

Figure 11. 'Child' (a doll) bayoneted in Chinese propaganda film. Source: National Film Board of Canada.

Figure 12. Japanese soldiers' killing contest. Source: The Japan Advertiser.

Figure 13. Japanese soldiers handing out sweets to Chinese children. Source: The Japan Advertiser.

Figure 14. Japanese propaganda in China. Source: Unknown Japanese.

Iconic photographs such as those of baby Ping Mei in the ruins of a Shanghai railway station or Japanese soldiers bayoneting Chinese POWs compelled a degree of moral awareness. Though the event was about far away alien victimization, the pain and identification they projected were, we believe, unmistakable. In 1937 the world was on the brink of conflagration and even if their impact is dulled by context and time, their power to summon humanist impulses then, stands in contrast to Sontag's insistence that images blunt morality and serve to promote pathos and sentiment (Hariman & Lucaites, 2007).

Earlier we observed the prewar sinking of the American gunboat *Panay.* It had a probable catalytic effect on the public that interpreted it emotionally as a national affront, not only because it was captured on film, but also because the press reinforced its importance for weeks. The lines of patrons at newsreel theatres demonstrated the American public's taste for "news" as images, as sentiment, and even in the prewar world, as a form of jingoist sport. Whatever the motivation, later public opinion surveys demonstrated American sympathies were measurably pro-China and anti-Japan following exposure to the visual and print information.

That said, the trauma of being a combatant in war produced a willingness in both the United States and Canada to use images as public opinion leaders employing white and black propaganda. One can appreciate how the "Rape of Nanking", synonymous with Japanese barbarity, assumed its iconic role. The 1942 and 1944 newsreel pictures of the Nanking atrocities reinforced anti-Japanese public opinion at the least. If John Magee's actuality footage from Nanking and staged images of panicked civilians in *The March of Time* stirred American audiences to demand revenge, so too did the lurid theatrical bayoneting of the child in Canada's newsreel, *The Mask of Nippon*. But propaganda chief John Grierson insisted that such images should be balanced by showing the human side of the Japanese; Canada's propaganda goal was to ensure that patterns of peace, not revenge, ultimately prevailed (Aitken, 1988; Evans, 2005). Being wartime, no one went on record to protest suspected image manipulation, a clear suspicion if one analyzes the perfectly positioned camera and actors. In Japan, the "killing contest" aside, (citizens in Japan's militarist society accepted the warrior's cliché Kill or Be Killed) the Japanese produced their own black propaganda to convince citizens of their humane treatment of the Chinese noncombatant population. One may conclude that if such images had their intended salutary effect, later evidence demonstrates they were dishonest to the core.

One of the great tragedies in recounting the Nanking event is the issue of females being "taken away" as witness Lewis Smythe expressed it so delicately in 1938. The "comfort women" controversy of the 1990s, triggered by current feminist discourse, raised the issue of sexual slavery and sexual assault, but little about the history that led to it. The fact that the Japanese command never planned for the sexual needs of its occupying troops was one catalyst that led to widespread rape (Wakabayashi, 2007). Subsequently, Japan attached (mainly Korean) "comfort women" to its troops to prevent a similar catastrophe from recurring. As well, such ravages were meant to humiliate the conquered populations. Today these surviving Korean females wait for a full public apology. Years later, Japanese servicemen's 'souvenir photographs' of the female despoliations served to demonstrate how powerful a photograph can be in terms of its ability to enrage civilized consciousness, no matter what the citizenship of the beholder is, and to remind one that suppression of the transgression of wartime rape is too often ignored in consideration of public propriety. Today the photograph below of this shamefully humiliated victim stands in a prominent place in the Nanjing Massacre Memorial Hall (Figure 15).

One is reminded of John Taylor's reference to how images of horror function cognitively as a peculiar blend of fear and disgust. They are both an affront and threat that people may share. Citing John Keane, he reminds us of how exposure to horror functions to keep memories alive, to heighten awareness of current cruelties, to raise issues about whether violence is justified, and to en-

courage remedies for savagery. At the same time one never knows if viewers respond to pictures and film with curiosity, esthetic distance or emotional involvement. What we have demonstrated in this research is that preserved images become part of historical memory (Taylor, 1998; Devereaux & Hillman, 1995; Keane, 1996).

LIFE and *LOOK*'s publication of atrocious photographs posed the question of what standard was used to decide what was proper to see. It is clear that a regular diet of such images would have provoked reactions of disgust, hence the media themselves determined taste and tone. This study has documented their chronology and contribution to historical public discourse. Once war came, the moving images of Nanking served to remind the public that the enemy's acts had been hateful and that common action would lead to Japan's defeat. Republishing these images in 2014 is meant to waken the public from moral slumber, indifference and historical amnesia and to remind present and future perpetrators around the world that there must be a reckoning for their crimes against humanity.

Why did China let Nanking slip from postwar public scrutiny? A faltering Nationalist China ignored the atrocity in exchange for Japanese political support in the late 1940s; after the Communists formed China's government in 1949, their own political expediency demanded that the shame be ignored. Since the 1990s, circulation of Nanking atrocity photographs has revitalized the event's iconic status. This relates to the emergence of a confident China, where nationalists at home and abroad demand historical justice, as well as to surviving Korean "comfort women" who claim the same. Japan's revisionists refuse to face history squarely because this would require that nation to relinquish its postwar status as victim. Contemporary conservative guardians continue to ignore the Nanking atrocity in Japan's history books. Japanese denial of scope and depth aside, the Nanking outrage serves a positive propaganda function of reminding governments that they are answerable for the acts of their soldiers. New generations of soldiers and civilian collaborators need to know that if they are told to obey and to ignore their conscience, they must, in the long run, answer in the court of posterity.

The absence of official postwar Japanese regret or willingness to pay reparations can be explained by Cold War politics that made it easier for public memory to lapse (Chang, 2000; Yoshida, 2000). Iris Chang concluded that Japan's refusal to accept responsibility for the victims of Nanking was a reflection of human nature: she thought unspeakable acts become banalities if they occur far enough away to pose no personal threat. That is one sad conclusion to draw about the Japanese war in Asia. American postwar interest in Japan had more to do with establishing a constitution and democracy than with accounting for Japanese brutality in China. As historians, some perpetrators, and many in the public now demand an explanation for this historical crime, one recalls Holocaust survivor Elie Wiesel's sober words "Whoever hears a witness to the Holocaust becomes a witness and messenger too" (Bonisteel, 1973). The unleashing of the Japanese soldiers on Nanking should not be allowed to stand as only another sad statistic of human misery. We believe the images referred to in this study impose rather than create a space for meanings (Hardt & Brennan, 1999) and serve a double purpose: they monumentalize shame until Japan accepts its moral responsibility, after which proper mourning and the integration of the collective memory of both Japan and China will be satisfied. Second, they may also serve to help Japan adopt the politics of atonement officially. If this results in some lingering private resentment, at the very least, it will at last force a fair and ongoing public dialogue between Asia's two Great Powers.

Figure 15. The humiliation of sexually ravaged women. Source: Nanjing Massacre Memorial Hall.

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Article

Impact of Social Media on Power Relations of Korean Health Activism

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Abstract
This case study explores how the Korea Leukemia Patient Group (KLPG) uses social media in its internal communication strategy and how that empowers its relationship with external counterparts. This study's findings indicate that the communication strategy of the local health Non-Governmental Organization (NGO) is changing in response to the increased effectiveness and impact of social media. Using social media (e.g., Twitter) the KLPG can quickly and effectively construct an issue-based advocacy group. Consequently, more legitimacy and representativeness through collected support from the general public have further empowered the KLPG. Yet, the sustainability component in the relationships built through social media use was not evidenced in the current findings. The effects of social media use were analyzed based on data from interviews with top-level KLPG executive members and general members, and from documentation and archival materials. Limitations and suggestions for future research are included.

Keywords
e-mobilization; health communication; Korean health activism; NGO communication; patient activism; social media

Issue
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1. Background

In the arena of global health, local activism is of high importance to transnational corporations' issues management and community relations (Sriramesh, 2010). As huge expansions of social media (e.g., Facebook and Twitter) have facilitated the e-mobilization of local activist organizations, these new social media are particularly influential on their efficient, consistent and timely communication with the public and with their current and potential internal members (Seo, Kim, & Yang, 2009; Sriramesh, 2010). In this regard, the case study aims to investigate how social media use in a local health activists' organization, the Korea Leukemia Patient Group, shapes internal communication, how changing organizational routines affect inner culture, and how these changes ultimately affect its external communication strategy.

In particular, health activism (Zoller, 2005) draws significant attention from both private and public sectors of society. Redoubling efforts in symmetrical communication between private and public sectors is highly emphasized, considering that global health, being related to basic human rights and dignity, needs philanthropic efforts over financial ambitions. In addition, health activism rests on peculiar political dynamics (Zoller, 2005). For example, in the Korean context, major political driving forces exist in social activism, such as anti-Western sentiment and resistance to capitalistic reformation and policy implementation.

Although Korean health activism is viable as a forceful agenda setter in the Korean health landscape, many Korean health NGOs have lacked human and financial resources, thus have relied on a handful of active members or leader groups. Consequently, asymmetry in internal communication within organizations—embedded in Korea's closed and authoritarian organizational culture and its top-down decision-making process—often raises ethical issues (Bowen, 2010). Activists often tend to face conflicts of interest such as

inappropriate corporate donations or government subsidies (Stuckler, Basu & McKee, 2011). Although many local health NGOs claim no strings are attached, this custom always presents obstacles to building organizational legitimacy and transparency (Stuckler et al., 2011). More, this criticism of seemingly inappropriate affiliations between health NGOs and corporations is not only a concern to health NGOs, but is also a problem confronting transnational corporations, in that their community relations might possibly be suspected of disguising marketing tactics (Stuckler et al., 2011).

Strikingly enough, the recent social media phenomenon has brought systematic and substantial change to the strategic communication of those health organizations in Korea. Increased e-mobilization has been accompanied by an increase in the volume of small donations and these now account for an ever-larger proportions of the organization's budget.[1] Constant participation of each individual small-donor eases the burden the organization bears in otherwise having to rely on a few deep-pocketed corporations. It thus is assumed that as social media are becoming incorporated into both health NGOs' routines and individuals' philanthropic efforts, two-way symmetrical and transparent communication between health NGOs and the public will also be further facilitated.

Under such assumptions, this study aims to explore how one specific Korean health NGO, the Korea Leukemia Patient Group (hereinafter KLPG), uses social media in its internal communication strategy and how that empowers its relationship with external counterparts. More broadly, this investigation can give multicultural public relations professionals better grasp of how local activism operates and how social media change their routines.

2. Research Problem

As social media occupy a major part of a health NGO's communication strategy with the public, *how* is the health NGO's inner culture and leadership benefited or changed? *How* do changing internal relations enhance its organizational ethics such as transparency, authenticity and responsiveness in decision-making processes? This set of inquiries also raises subsequent questions; does increased social media use really benefit activism? And *how* does this empowerment affect its strategy against external counterparts? Does more equal valence in the relationship contribute to mutual interests? And *why* and *how* does it do so?

Much academic investigation has been done into how transnational corporations run public relations to promote issue ascendance or Corporate Social Responsibility—CSR; however, little attention is given to how local activist organizations communicate with *their* internal audiences. The topic of this study question is particularly relevant to global Public Relations practitioners because organizational culture itself is essential to shaping an organization's outside activities.

In contrast to ample research investigations of corporate ethics (Bowen, 2010), NGO ethics have been marginalized in the realm of academia because more emphasis has been put on societal value and meaning, and legitimacy and power in activism (Smith & Ferguson, 2010) than communication openness and transparency in the organizational ethical construct (Ross, 2002).

3. Research Questions

This case study will explore how the KLPG uses social media with its internal members and how this will affect its relationship with external counterparts. Accordingly, research questions are as follows:

> *RQ1: How does a local health NGO use social media to communicate with its internal members?*
> *RQ2: How does a local health NGO's use of social media change the relationship with external counterparts—such as transnational pharmaceutical companies and government authorities?*

The study examines the way the use of social media changes the organization's culture in terms of the organization's leadership and ethics such as transparency and responsiveness. Also, the study further explores the effect of changing the organization's culture on its communication strategy as well as its relationships with external counterparts.

4. Organization to Be Studied

Founded in 2002, despite its short span of a little more than a decade, the KLPG has now become one of the representative patient groups in the local health activism landscape, with more than 8000 supporters and six paid executive activists. The KLPG's annual budget is approximately US$250,000. Sources of income consist of regular membership (45.5%), donations and fundraising (28%), government subsidy (16%), and miscellaneous (10.5%).

The KLPG's primary organizational goals are (1) to organize and offer emotional support and practical help to those who had or have leukemia or a blood disease, and their families and friends, (2) to promote blood donations needed after cancer treatment and transplants of hematopoietic stem cells, and (3) to devise alternative ideas to improve public health policy and protect patients' rights.

The KLPG has achieved notable success in enhancing patients' rights. In particular, Korean health activism

[1] Based on the researcher's personal interview with Ahn Ki-Jong, the leader of the Korea Leukemia Patient Group.

and its lowering of the price of GLEEVEC, a unique treatment for certain forms of cancer, is a widely-cited successful case of price negotiation. After more than four years of three-party talks between the KLPG, the Ministry of Health and Wellness of Korea, and Novartis Korea, blood-cancer patients in Korea eventually gained free access to GLEEVEC with support from both the public health care plan and price reimbursements from Novartis Korea.

Apart from activism against its external counterparts, the KLPG is also implementing diverse health campaigns with support from a variety of non-profit and for-profit organizations. Three current areas on which the KLPG mainly focuses are (1) provision of consultation and education for patients needing medical treatment, (2) enhancement of anti-bacterial environments for patients fighting disease, and (3) organization of volunteer groups.

5. Literature Review

5.1. Health Activism

Many scholars have noted that health activism is defined as or understood as political action for (i) a cause that could save human lives, and (ii) those who would otherwise perish as a result of social injustice or unequal distribution of resources (Labonté, 2013; Laverack, 2013). Therefore, working against the tenets of capitalism and bureaucracy, health activism has become more empowered and has contributed to shifting power and norms to bring about substantial changes in culture and policy in the public health arena (Labonté, 2013; Laverack, 2013). To fulfill the aim of health activism, a successful strategy should be enacted to obtain "strong leadership, good media relations, a network of strategic alliances and sufficient, independent financial resources" (Laverack, 2013, p. 50). Particularly in the global context, ample successes have already been achieved through grassroots activism. A notable example is the interruption of monopoly rights of pharmaceutical companies, and of manufacturers of life-saving treatments; this was made possible as activists successfully mobilized support in the street as well as in courts in many countries (Labonté, 2013; Laverack, 2013; Lofgren, 2013; Magg, 2006; Vasella, 2003).

5.2. Activism and Local Politics in South Korea

Similarly, in Korean society, local health activism has grown into a significant political driver. The uniqueness of the Korean health market and culture should be considered for better understanding of Korean health activism as distinguished from health activism in Western society. Unlike the U.S. or other Western countries, in which privatization and individualism prevails in dealing with public health issues, the Korean public health system largely operates on the government system as seen in the universal health insurance policy and price-setting system. In Korean society, medication is covered by public insurance and drug prices are set by the Health Insurance Review and Assessment Service under the umbrella of the Ministry of Health and Welfare (MHW) and pharmaceutical companies. Thus, the power relations of Korean health activism lie mainly in consideration of triangular relationships among global pharmaceutical companies, government health bodies, and activist organizations themselves. To be specific, in facing global pharmaceutical companies, the Korean government and activists may be on the same page in arriving at a price deal; at other times, health/patient activists may partner with global pharmaceutical companies as joint stakeholders when both parties can benefit from the public health insurance coverage. Therefore, ethics and public obligations that grassroots health activists aim for have a critical role in the Korean public health arena.

5.3. Social Media

The term "Social Media" is a broad concept encompassing diverse "interactive media channels that allow two-way interaction and feedback" (Kent, 2010, p. 645). To reduce ambiguity and clarify the concept as more relevant to this study, of the various types of social media (e.g., blogs, forums, podcasts, Wikipedia and YouTube; Helmond, 2009), this case study focuses on social networking sites (SNS) such as Facebook and Twitter as the most representative media reflecting the core nature of social media—in convenience as well as social utility.

It should be noted that SNSs are the social media most recently used by health activists to reach their internal audiences. One of the clear advantages of SNSs over blogs is the ability to get one's word out more effectively and quickly. Individual users access more validated and socially "significant" content through sharing posts or "re-tweeting." As a result, social media are tools that promptly and consistently facilitate a health NGO's internal members' and supporters' access to information relevant to their philanthropic motivation and health community concerns.

5.4. E-Mobilization and Activism

As with increased interactivity, interchangeability, propinquity, and responsiveness in digital media traits (Kent, 2010), publics have become more empowered and less restricted, bypassing traditional institutional controls of corporations (Bernoff, 2008). As Coombs noted (1998), technology contributes to building equal relationships between publics and organizations by facilitating a virtual organization designed by members of social media.

Reflecting these contentions in this case-study, it is assumed that social media also benefit a non-profit local activists' organization like the KLPG by providing effective means of communication for mobilizing support. Indeed, we have already seen such cases in the global activism landscape. Specifically, Chinese local activists were easily able to organize participants through e-mobilization when protesting against global corporations' business routines (Kent, 2010). This happened beyond geographical constraints and without the help of a system-based entity. Thus, it is clear that a local health NGO, the KLPG in this case study, can also make the best use of social media, reducing the burden of traditional media control for publicity by building direct, intimate and sustainable interaction with its supporters.

5.5. Internal Members

Given that a health NGO is a not-for-profit organization, its supporter group is the public who donates to, or psychologically advocates for, it. They are mobilized support (Bourland-Davis, Thompson, & Brooks, 2010) who share a relationship to the organization (Moffitt, 2001) with common worldviews and goals in the public health agenda. Stakeholder groups are the group with direct and financial interests in the NGO's activity. They financially and socially benefit by such outcomes as drug price negotiations and implementation of a public health care plan relative to treatment of the disease with which they work. Last, the employee group comprises activists paid by the health NGO. In terms of expected interests and shared values, this group is situated in the middle of both above groups in that they obtain both financial benefit as well as social recognition from the outcome of the health NGO's activities.

5.6. Dialogue and Responsiveness in Communication with Internal Partners

All the aforementioned concepts related to the research questions are pertinent to exploring the dialogue and responsiveness in organizational communicative culture. Although previously explored the organization's ethical frameworks mostly refer to for-profit organizations such as corporations, we can also apply the Kantian model of ethical decision making and communication considerations to non-profit settings because, whether an organization is for-profit or not, all organizations share common traits in that their ethics and public relations are significantly affected by the leadership and communicative process in which decisions are made (Bowen, 2002). According to Bowen (2010), dialogue and responsiveness are core elements in ethical public relations, "imbued with inherent goodness or moral worth" (p. 574). Despite limited empirical exploration of NGOs' ethics and public relations, it is conjectured that health NGOs based on local activism are driven by the core leadership and funding structure. More importantly, because health NGOs serve philanthropic goals for public health (Zoller, 2005), ethics and legitimacy are even more crucial for them than for for-profit organizations.

Thus, as in a corporate setting, we can apply the Kantian model of ethical issues management to the context of local health NGOs' internal communication and external relationship-building processes. The model illuminates a symmetrical nature in practices for ethical and successful public relations (i.e., two-way communication with the public, formal and informal research, inspiration of change in organization and audiences, mutual understanding, and relationship maintenance) (Bowen, 2005, p. 193). In this respect, the KLPG's strategy regarding communication with its internal members, will drive the organizational decision-making process sequentially, thus affect the external relationship with its counterparts.

5.7. External Counterparts

External counterparts are the groups who have financial interests conflicting with, or the reverse of, those of the health NGO; these include pharmaceutical companies and government authorities. These external counterparts are organizations who perceive the health NGO as an issue to be handled, or in an academic description, "the capacity to understand, mobilize, coordinate and direct all strategic and policy planning functions, and all public affairs/public relations skills toward achievement of one objective: meaningful participation in creation of public policy that affects personal and organizational destiny" (Chase, 1976, p. 1). These external counterparts do not necessarily have conflicting relationships in terms of social values and meanings; after all, those entities share common values such as to defeat disease and to achieve better health treatment and welfare. Nonetheless, in details and with regard to specific aspects and/or methods of solving issues, external counterparts have disputes due to the negative impact of the issue on their profit gain or business routines (Jaques, 2010).

6. Case Study Method

This study uses the case study method, for two main reasons. First, case studies provide scientific evidence based on rigorous data collection from real-world contexts, which distinguishes such evidence from arbitrary interpretations of text or subjective observations (Yin, 2003). Also, as Yin noted, a case study is well suited to research questions as to *how* and *why*, focusing on contemporary events with no need to control behavioral events.

This study's purpose is to explore one specific local

health NGO's use of social media and its impact on the organization's communication with both internal and external members. This exploration cannot be pursued fully through experiments or surveys because the organization's social media use cannot be manipulated or measured on an absolute scale. In particular, social media use is the consequence of the organization's culture and strategies, rather than an independent variable that is frequently calculated and controlled in a typical quantitative approach. Accordingly, a case study is more appropriate to fulfill this study's aim.

Validity advantage derives from allowing for and facilitating in-depth descriptions and a thorough understanding of how and why the organization's characteristics, social media use, and relationships interact. We can avoid the reductionist pitfall of building relationships between social media and communicative change, thereby enhancing the validity of study via specific clarification of various forces when explaining social media impact on an organization.

To obtain theoretical power, this study will explore the exemplary case of one local health NGO, based on local health activism, whose financial and organizational structure is independent, mainly supported by its membership and charitable donations. Accordingly, the relationship between the KLPG and its external counterparts shows tensions typical among local health activism, government authorities, and transnational pharmaceutical companies. In this way, the study is expected to obtain replicability leading to generalizability of the findings.

Doubtless, the case study method has several limitations. Despite rigors in the clarification of this study's concepts and constructs, and the exemplar background around the KLPG reflecting the strained/cooperative relationship between local health activism and global pharmaceutical companies, the analysis and findings are yet restricted to within one specific organization, thus might not be able to be extended to other organizations.

7. Data Collection Procedures

As noted by Yin (2003), this study uses three sources of evidence: (1) telephone interviews, (2) documentation, and (3) archival records. Each of the following individuals were interviewed by telephone thrice: the KLPG's leader, the KLPG's PR strategy manager, and a KLPG member. Interviews were based on the script in the Appendix focusing on how the KLPG uses social media to communicate with internal members, how changes in the communication process influence communication effectiveness and transparency, and how and why these changes are important in external communication.

Data collected from interviews carries significant validity, since this is a case study on a small organization whose leadership is virtually a couple of people. Also, although this study collected data from a small number of interviewees, validity was not necessarily harmed as several studies on the organization's leadership (Bowen, 2002, 2005, 2010) focused on interview quality rather than on interviewee quantity.

In addition, documentation and archival records were used to obtain recorded or quantified evidence of actual campaign strategies implemented using social media and on their role in mobilizing members and attracting donations.

8. Data Analysis

To obtain a full picture of the impact of social media on the KLPG with particular reference to e-mobilization of support and publicity, this study will combine quantitative and qualitative evidence (Yin, 2003, p. 109) to explore the study's initial propositions, namely that social media bring about changes in transparency and responsiveness of the communication process.

Additionally, data will be analyzed based on logic models, an effective data analysis technique to clarify complex and repeated cause-effect-cause-effect patterns (Yin, 2003, p. 127). Although this case study is more exploratory than confirmatory, it aims to pursue a test of the theoretical proposition. Accordingly, this study will compare data collected on the KLPG's communication process and its external relationship-building to the framework of collaborative decision making and also to the listening and appreciating elements in the ethical construct that Ross (2002) identified. The logic model presumes that the use of social media influences the KLPG's communication process and effectiveness, which in turn affects external relationship-building. It is important to note that this sequential model is more appropriate to exploring the interaction of variables than to one-way and simple pattern matching.

9. Results

The results section includes direct quotations from interviewees, information from archival materials, and documentation. From this point forward, items attributed to KLPG leader Ahn Ki-Jong, refer to the research interview of November 24, 2011.

9.1. Twitter and Celebrity Endorsement

The news article covering the KLPG's philosophy and identity through the interview with the KLPG leader was arranged in the headline page of *OhmyNews*, Korea's most-read Internet news channel, then viewed by approximately 10,000 readers (OhmyNews, 2011). However, when it was retweeted by the influential figure, liberal politician Lee Chung-Hee (having 100,000

followers), the interview article received an *additional* 11,000 readers. It also gained *another* 17,000 readers immediately after famous comedian Kim Mee-Wha's (having 160,000 followers) retweet. Ahn recalled the episode and cited the importance of social media to the KLPG.

> "Merely two power-Twitter users' retweets of the news article on the KLPG issue brought about 'three times the effect of a traditional news media arrangement.' At that moment, I realized that—for the KLPG—it is more important to know how to circulate the information through social media rather than to just rely on traditional media exposure to push our issues to the public."[2]

Another visible benefit through interaction with power-Twitter users comes from the ease and convenience in fundraising. The *The Cost of a Meal Can Save Sodkoo* campaign in 2011 might be a fitting example. Sodkoo, a three-year-old toddler from Mongolia had leukemia and visited Korea for treatment not feasible in his homeland due to lesser medical technical skill there. Although Sodkoo arrived with the equivalent of US$20,000 raised in Mongolia, that amount was insufficient for the full treatment. To assist him, the KLPG initiated a fundraising campaign and sought power-Twitter users to retweet the campaign website. Shortly after the KLPG contacted famous Korean actress Ku Hye-Sun through Twitter, she sent positive feedback. Particularly because the soap opera in which she had starred in 2007 was extremely popular in Mongolia, she is well known and admired there, so she willingly joined the campaign and visited Sodkoo in his hospital room. With Ms Ku's fans also joining, the KLPG raised US$30,000 for Sodkoo who could then be treated further and successfully return to health (Medigate News, 2011). Park Jin-Seok, the KLPG's Public Relations strategy manager, cited the effectiveness of social media in handling fundraising issues for the KLPG:

> "Thanks to Twitter, the KLPG can easily interact with celebrities or power-Twitter users on a real-time basis, easily building a direct communication channel with them, bypassing business contracts. It is also beneficial for celebrities to perform good deeds through retweeting or asking their fans to participate in charitable donations solely based on personal will. If we contacted celebrities through their agencies, there would be many constraints and the KLPG would need to pay for operating expenses. For example, major NGOs with relatively deep-pockets who invite celebrities to their events would pay more than $2,000 a time. This is not affordable for the KLPG."

[2] This and following interviews have been conducted in Korean, then translated into English.

9.2. Small Donations through Social Media Campaigns

One of the KLPG's constantly-running projects is the Clean Car Campaign, providing an anti-bacterial vehicle for blood cancer patients whose immune systems are vulnerable (Clean Car Campaign, n.d.). In 2011, the project stopped because a decrease in corporate donations forced budget cuts. So, rather than seeking corporate donations, the KLPG aimed to raise small donations for the project (Blood Talk, n.d.). The KLPG posted a news article on the issue on the organization's home page, and then asked 25 power-Twitter users in Korean society to retweet it. Of those 25, five were willing to retweet, and the result was that 135 people pledged to support the project and necessary funding raised minimum funds to continue the project.

Park Jin-Seok remarked on social media use as a communication vehicle for drawing public interest.

> "I used to try to meet journalists in person and draw their attention to issues at hand. Unlike in the past, I can now write articles based on my own perspectives, considering audience interests and motivation. Also, these days, Korean companies' philanthropic efforts focus on global charity, not on patient organizations. Thus it is becoming even more important for us to draw small donations from the general public. To put it simply, I think social media are a sword and a shield for the KLPG."

9.3. Internal Members of the KLPG

Members of the KLPG comprise regular, associate, voluntary service, and supporting members. Regular and associate members are patients and patients' family members who are agreed on the KLPG's philosophy and action plan. If a member signs up for a monthly donation subscription, he or she is counted as a regular member; otherwise, he or she will be an associate member. Voluntary service members and supporting members are non-patient members who support the KLPG by regular donations or voluntary service. Additionally, two special celebrities—a Korean beauty pageant winner and a fashion model—officially endorse the KLPG.

9.4. Issues in Internal Relations

The KLPG major goal is to pursue the health rights of blood cancer patients, and to provide mental and financial support for them. However, some issues require internal handling. Overall, the KLPG's highest priority is the rights of blood cancer patients, so if a government health agency or other health service provider stands against patient members' rights and interests, the KLPG tends to criticize those external counterparts. Yet the response might be different if blood

cancer patients' interests and the general public's interests are trade-offs. For example, drug prices are settled in negotiations between the National Health Insurance Corporation (NHIC) and the pharmaceutical companies. When considering only patients' interests, patient organizations typically tend to push the NHIC to an agreement with pharmaceutical companies as soon as possible because, no matter what the price, patients can be covered by insurance. Moreover, if the price is not finalized, the pharmaceutical company cannot sell the drugs, so patients' treatments can be delayed. However, the KLPG's philosophy and action plan does not uphold only patients' interests. According to KLPG leader Ahn, considering that NHIC's budget should be spent on the general citizens' health rights, not solely on a specific disease group, as often as not, blood cancer patients' needs and demands should be checked for fair and balanced use of national insurance funds (Jinbonet, 2008).

As such, in sensitive issues entailing conflicts of interest, organizational ethics and leadership become critically important to build organizational identity and an action strategy for dealing with external counterparts. KLPG executive office members do not see two-way communication as absolutely beneficial to the organization's ethics and leadership. Leader Ahn's comment below outlines the ambivalent role of two-way communication in internal communication.

> "One of the possible concerns anticipated from the executive office's side is the immediate controversy over our prioritization of public interests over blood patients' interests. If new members are not aware of our original identity, they might extensively advocate patient-centeredness. In this case, two-way communication is a two-edged sword. To be specific, the KLPG was initiated to pursue social and humane justice, such as protesting against overly-expensive drug prices, but was not intended to pursue private and selfish interests of patient groups. If we care only about patients' financial and medical interests, we would not need to support the government in price negotiations with pharmaceutical companies, because no matter how much the drug cost will be, national insurance will cover it. However, the KLPG appreciates government efforts to save public funds, so we are not pushy on making fast deals just to get drugs as soon as possible. Two-way communication might cause confusion and inefficiency instead of transparency and sustainability."

By far, organizational identity and major decision-making are not fully discussed and agreed upon through social media platforms. First, there has not been a major political issue, so the KLPG has shifted its focus to patients' welfare rather than to the political issue. Next, not until recently did social media become extensively used for internal communication. Often, bottom-up decision-making was processed through phone calls or interpersonal contact with executive members. However, executives recognize the importance of social media in encouraging dialogic communication, thereby building organizational authority, transparency and representativeness in issues management in the future. It is because without social media, only enthusiastic members use the interpersonal channel to deliver their opinions to executive members.

9.5. Transparency and Responsiveness in Future Trends

Although KLPG executive members might be concerned by possible limitations of social media's effectiveness in internal communication, they believe that dialogue and agreement on the KLPG's philosophy—via social media platforms—will enhance organizational representativeness and legitimacy. Also, the executives see it as a major future goal in internal communication. Leader Ahn outlined it so:

> "Especially for a small-sized NGO like the KLPG, there is considerable concern about isolating the executive office from its internal members. The KLPG holds a meeting only annually with internal members, so the executive office might tend to be the dominant driver of the major decision process. But since early 2011 the organization has extensively used social media like Twitter, so we expect to gather members' opinions quickly and spontaneously."

It seems that the frequent and easy access of general members to the decision-making group would elevate ethics in organizational communication and its leadership by balancing patients' group needs and interests, and the common public good, where non-patient members' opinions and interests are also involved.

9.6. External Counterparts of the KLPG

The first significant external counterparts to consider are government health agencies, councils and Congress as the public sectors with whom the KLPG interacts or negotiates on public policy. For example, if government reduces health benefit coverage for blood cancer patients and discriminates based on blood cancer type, the KLPG works to stage a protest against the proposed cutback of benefits. However, the relationship between the KLPG and government started to change in 2007 as the KLPG grew into a qualified health NGO; in several health campaigns, such as the hematopoietic stem cell donation campaign and the organ donation campaign, the KLPG and the government collaborated. Other external counterparts are a group of health service providers' organizations, including the Korean Medical As-

sociation, the Korean Hospital Association, the Korean Pharmaceutical Association, the Korean Pharmaceutical Manufacturers Association, and so on. The relationship with medical service providers varies based on mutual financial interests and the extent of invasion of patient rights. With regard to the high expense of blood cancer treatment, the Right to Life, and the Right to be Informed, the relationship might be strained, yet for issues such as the procurement of medical services for those in poverty, rebates for medical expenses, and patients' Declaration of Rights, the relationship is likely to be harmonious. In addition, Corporate Social Responsibility (CSR) programs are major counterparts of the KLPG; examples include the La-Mi cosmetic company, and Ozone Phytoncide Solution (an air cleaning service firm). When and where those corporations have genuine motives in CSR, the relationship would be cooperative, but in situations where patient rights are violated for commercial purposes, the relationship would be frictional.

9.7. Legitimacy and Representativeness in External Communication

Potentially, social media are highly influential in mobilizing support in dealing with external counterparts. In particular, the transparent and effective nature of social media helps in increasing legitimacy and representativeness of the mobilized support. An illustrative anecdotal episode was the mounting of a recall of government policy in response to the cutback of health benefits for cancer treatment (Policy Recall, 2011). The Special Favor Policy for cancer patients, allowing them to pay only 5% of treatment costs for the first five years of treatment, was called for to offer an extension for those suffering severe symptoms in the aftermath of treatment. To push government health authorities to reflect public opinion, the KLPG uses a special online application tool to gather signatures through the Short Message Service (SMS). A person can send a text message via his or her mobile phone to the designated number, whereby his or her signature is registered online via text/phone identifiable personal information. KLPG PR strategy manager Park Jin-Seok has mentioned several aspects of the value of the combined use of Twitter and online signature applications:

> "First value of the application is to help in tracking down signature validities through mobile phone numbers and addresses. Thus, signatures collected through the application can carry more weight with authorities or health service providers. Second, Twitter and the application reduce much of the burden in a signature-seeking campaign. We gathered more than 10,000 signatures through the online application. But if we attempted to do that offline, we would have to turn to the street and put extensive time and labor into meeting people and persuading them to sign up. In response to this, government authorities have started to research the possibility of a policy recall, and policy reform is now expected soon."

As noted, social media provide the most cost-effective methods ever in gaining public support, even for changing policy minutiae—which, often, is not easy for general populations to understand. While some scholars (Labonté, 2013) doubt the potential and actual contribution of social media in building organizational power in health activism it is anticipated that 'Clicktivism' will flourish as a form of more public-driven action than have other methods in the past.

9.8. Benefits and Limitations of Social Media use from Members' Perspectives

Both patient and non-patient members commonly perceive benefits in the KLPG's use of social media. Un-Young Lee, a patient member, commented that social media are more effective for quick updates and dissemination of information to like-minded people. Jeon Ju-Hyun, a non-patient member, also noted that social media enables the KLPG to disperse the organizational agenda into a variety of populations, creating more sympathy for any individual issue. However, the member interviewees shared a common view that not all communication through social media necessarily leads to a sustainable and long-term relationship with participants in the issue. This point was also made by the leader of the KLPG Ahn Ki-Jong, that celebrities or power-Twitter users who endorse the KLPG through retweeting or supporting a fundraising campaign often are not aware of its organizational philosophy and identity, so regard their brief support as merely an act of charity rather than becoming involved in a sustainable relationship with the KLPG. This minimal association is also reflected in interaction from the general public. Thus, future organizational communication strategies need to focus on a new communication strategy to overcome the current limitation, thereby turning the speedy yet short-term linkage with the public into a more sustainable dynamic.

10. Discussion

This case study pursues a clear understanding of social media's effectiveness, especially for transparency and responsiveness when fighting for issues and mobilizing support from the public whereby a local health NGO can be empowered substantially. Laverack (2013) pointed out critical elements of successful social movements such as access to human and financial resources and leadership and participation sharing a common world view and philosophy. Aligned with this perspective, the

KLPG successfully seems to utilize social media to strengthen elements critically important to an ethical and efficient health community. This study's findings suggest that social media are incorporated into an effective campaign strategy helping empower activists dealing with the complicated political relationship with institutional authorities.

This finding about social media use in organizational internal communication is consistent with Kent's prediction (2010) that social media bring effectiveness and convenience, especially in drawing the general public's attention to KLPG issues. In addition, by bypassing traditional and institutional control of corporations (Bernoff, 2008), social media spawns easy access to celebrities who might endorse the organization and/or its aims. Consequently, the social media phenomenon affects organizational PR strategies so as to focus on information circulation by power-Twitter users, rather than by relying solely on traditional media coverage. Thus, analysis revealed that after the KLPG adopted Twitter use, it changed the organizational communication dynamic, rendering it more effective via endorsement of celebrities and power- Twitter users on specific issues. This finding is consistent with the notion of powerful and effective activism through e-mobilization (Kent, 2010). Dialogue and responsiveness in communication with the general public empowers the KLPG by enabling it to obtain more trust—and more thrust—against external counterparts.

However, overall transparency and effectiveness in social media communication among internal members does not necessarily mean two-way communication in decision-making. To be specific, research results found there to be limited use of social media in internal communication, particularly for sensitive and debatable political issues such as patients' self-centered interests or organizational philosophy. In the organizational decision-making process, the KLPG has not had the opportunity to experience a two-way symmetrical communication strategy among internal members. The KLPG's leaders prioritize social good rather than organizational self-interest, being consistent with the Kantian model of ethical decision-making (Bowen, 2002). Hence, although the KLPG often relies on a one-way decision-making process in internal communication, its ethical leadership remains intact. This finding is inconsistent with previous studies' assertions on the correlation between organizational ethics and two-way communication in the decision-making process in corporate settings (Bowen, 2002, 2005).

In *this* case-study, the KLPG's ethical decision-making was driven by organizational leadership pursuing a common good apart from prioritization of patient groups' interests. Thus, it is not counted as a bottom-top, two-way symmetrical approach. Rather, the KLPG showed a one-way decision-making process, yet the decisions were supported by the public and were constantly and promptly communicated among internal members, as well as to the general public through social media. Social media are effective tools for use by organizational leadership to bring about responsiveness and to transform the general public into advocates.

Taking all these elements into consideration, executive members have wisely come to value and embrace the importance of transparency and responsiveness through the dialogic nature of two-way communication additionally for internal decision-making. Effort invested in a communication strategy through social media also builds more sustainability in not yet fully developed internal relationships. Executive, patient, and non-patient members alike shared a common view of the role of social media in making an internal communication strategy work to that end.

Therefore, consistent with the logic model proposed in this study, social media first help to broaden the scope of internal participants' responses to the nature of an issue, then, in turn, help to broaden the transparency and responsiveness of both internal communication and external communication. However, sustainability in internal communication is not evidenced in the current communication strategy, although it apparently will be pursued in the KLPG's not yet fully developed future strategy.

This research study is somewhat diluted by several limitations. The first is in the lack of generality in the KLPG case findings because, globally, individual local health NGOs are situated in different social, cultural, and media environments. More specifically, the analysis on social media use of the organization presents a limitation on validity in that social network sites such as Twitter and Facebook have been introduced in Korea later than in the U.S. This time-frame discrepancy might inhibit results within the Korean context. Also, given that the KLPG is considered a minor NGO with a small membership, other major NGOs in Korea—operating on a much larger scale—might use social media in ways different from the KLPG.

A small number of interviewees and outdated data might raise methodological concerns and thus further investigation into this area is needed to address these issues. However, since the 2011 period during which I collected data was the initial stage for the organization to incorporate social media into its strategy, I think this paper, depicting that period, is profoundly relevant to the research question of this study, and eminently worthy of academic investigation. Interview data mainly comprise anecdotal rather than quantifiable information, so the current study's value might be more exploratory than confirmative. Of course, current findings could be complemented by subsequent quantifiable information to transform findings into theoretical concepts with increased validity. Accordingly, future studies should build upon the model proposed by this study and further investigate the contribution of social media

use on local NGOs' PR strategies in a longitudinal approach. Also, future studies should address how sustainability in PR can be achieved beyond the quick—yet effective—communication in current findings. To obtain more generalizable credibility in measuring constructs this study proposes and explores, factor analysis might be pursued using subjects from the population who engage in NGOs. It is hoped that this study's framework can be extended into studies of organizations worldwide, in terms of scale, nationality, and internationalization.

11. Conclusion

In sum, this study's findings indicate that the local health NGO communication strategy is changing in response to the increased effectiveness and impact of social media. Rather than relying on a small group of enthusiastic members, the KLPG can construct an issue-based advocacy group quickly and effectively. In the social media era, by pushing external counterparts with more legitimacy and representativeness through collected support from the general public, the KLPG sees itself as more empowered, and as independent from external counterparts. Based on these findings, a prediction: a local health NGO's use of social media in its internal communication strategy renders its relationship with external counterparts more symmetrical, more independent, and more effective.

Social media can be strategic tools, especially for local health activism in enlarging their resources, power and leadership. In this sense, the KLPG case is surely a benchmark for many other global health practitioners and activist groups. The case is brimful of insights into the use of social media to access and mobilize a wide swath of individuals via a more intimate, yet casual, and remarkably rapid means to deliver sensitive or shocking public health issues. This social media communication approach also helps in reducing possible worries and concerns about 'too radical activism,' which could often draw attention away from main issues, and could reduce the general population's support for expert-led and specific health issues at hand (Laverack, 2013).

More important is that the empowerment of grassroots health activism can contribute to building more independent, sound and equal relationships with external counterparts. Activists should pay special attention to built-in applications on social media that swell the total volumes of small donations. This offers health activism better financial stability, thus more effective offset of—and counteraction to—social injustice and inequality where greedy corporations and complacent governments might otherwise endanger the lives of marginalized groups in the global health arena (Laverack, 2013).

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Conflict of Interests

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Appendix

The following script and questions will be used for all three interviews:

Thank you for your time talking with me today, and for sending your information in advance. Before we start, please ask me whatever you wish about this interview and my case study, and tell me of any related concerns.

1. How do you define internal members of the KLPG?
2. What kinds of social media does the KLPG use to communicate with internal members of the KLPG?
3. How does the KLPG use social media to recruit supporters and inform them about the KLPG's agenda?
4. How, when, and in what order is decision-making processed, and how do the KLPG's senior executives communicate decisions to members?
5. In comparing before and after the use of social media for internal communication, what differences are there?
6. Is there any anecdotal and/or documented evidence regarding use of social media to collect opinions from internal members? If so, how do you think communicative effectiveness will affect the KLPG's transparency and responsiveness?
7. How do you define the KLPG's external counterparts?
8. How do you define the KLPG's relationship with those counterparts?
9. In your view, **a:** What are the major goals in building relationships with those counterparts? and **b:** What are the most crucial elements needed to achieve these goals?
10. In dealing with your external counterparts does internal communication affect you? If so, to what extent, and please would you share anecdotal evidence of that? However, if you are *no*t affected at all, please share your thoughts on why?
11. Would you like to mention anything else about your experiences in use of social media for internal communication, and about its influence on how the organization builds relationships with external counterparts?

After these questions, I will invite their further remarks/final comments (at their discretion, of course). I will also ask whether I may subsequently contact them upon contingency. Although their answers will be identifiable by their KLPG position, I will inquire whether they are comfortable with being identified by their full names or preferably by only their positions.

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Article

The Problem of Realist Events in American Journalism

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Abstract
Since the nineteenth century, more kinds of news outlets and ways of presenting news grew along with telegraphic, telephonic, and digital communications, leading journalists, policymakers, and critics to assume that more events became available than ever before. Attentive audiences say in surveys that they feel overloaded with information, and journalists tend to agree. Although news seems to have become more focused on events, several studies analyzing U.S. news content for the past century and a half show that journalists have been including fewer events within their coverage. In newspapers the events in stories declined over the twentieth century, and national newscasts decreased the share of event coverage since 1968 on television and since 1980 on public radio. Mainstream news websites continued the trend through the 2000s. Instead of providing access to more of the "what", journalists moved from event-centered to meaning-centered news, still claiming to give a factual account in their stories, built on a foundation of American realism. As journalists concentrated on fewer and bigger events to compete, audiences turned away from mainstream news to look for what seems like an abundance of events in digital media.

Keywords
content analysis; cultural critique; five Ws; history; journalism; media studies; news; realism; social constructionism

Issue
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1. Introduction

When famed muckraker Will Irwin assessed American journalism a century ago, thousands of events entered the flow of news, but, he says with confidence, "information on most of them reaches the newspaper offices" (Irwin, 1969, p. 34). Fifty years later a *Peoria* (Illinois) *Star* editor reported receiving twelve thousand inches of wire copy a week, and *gatekeeping* became the metaphor for what he and other journalists do to manage the flow (White, 1950; see also Reese & Ballinger, 2001). Over the century, the reach of news organizations grew, and wire services built networks that circled the planet. Although some foreign bureaus began to shrink later on, the modes of communication multiplied beyond radio and television, to cable and satellite TV, and research suggests that television news has become more focused on events (Iyengar, 1991). The conveyances for news expanded from telegraph, telephone trunk cables, air couriers, and fax and teletype machines to computer and wireless devices. With internet and cellular telecommunications, reporters seem to have access to even more events. The expanding ways and means—the growing reach—of newsgathering suggests a commonsense assumption: that audiences can also get access to more news events than ever before.

Are more events covered now than a century—or even fifty years—ago? Journalists say a deluge of occurrences has become a "glut" they must govern. A veteran beat reporter who worked for the *Sacramento Bee* and *Baltimore Sun* laments having "too many stories, too little time" (Winburn, 2003, p. 114). "We are all flooded with too much information", an ex-*Newsday* reporter says. "People are intellectually and emotionally capable of absorbing only so much" (Rosenblum, 1981, p. 14; cf. Rosenblum, 1993). During the financial

meltdown of 2008, journalists quoted audience members unable to "keep up anymore with all of the news and current events" (Williams, 2008, October 10).

Public opinion polls consistently find that about a third of U.S. Americans—those who most attend to news—feel overloaded (Pew Research Center, 2006, July 30), and despite ups and downs, the glut of events continues to cause stress as crises come and go (Fuller, 2010). Almost two-thirds of U.S. professional or white-collar workers in 2008 and 2010 said that having too much information slows their work (Walsh & Vivons, 2010, October 20). There seem to be too many news events especially for the young (Nordenson, 2008). The "relentless rise in the number of news outlets, the frequency of news reports, and the media's clamor for every scrap of new information", says former *New York Times* editor Jack Rosenthal, has immersed society "in a flood" that creates "a kind of widespread attention deficit disorder" (2004, August 8). Consequences follow because the belief that an information overload exists has led journalists and others to take action.

2. The Press: Events Dwindled in Stories

How do journalists cover all those events? To find out, several studies have examined newspaper content for more than a century. They showed that the form and content of the news changed, leaving room for fewer stories, and those remaining grew notably longer (Barnhurst & Nerone, 2001). The declining number of articles and items on the front page need not imply that fewer events get reported. For instance, longer stories might include more events. A century ago newspapers would run three reports on three different fires in the city, but an editor could combine all three into one package. Or a reporter might write one story built around a similarity that the three events share. Did that happen? No, news stories included fewer events through the twentieth century (Figure 1).

The number per article declined markedly across newspapers (Barnhurst and Mutz, 1997). Two large papers, the *New York Times* and *Chicago Tribune,* moved strongly away from multiple events, and the trend was solid at the smaller Portland *Oregonian.* News topics also followed the trend. Events in crime stories changed the least, but accident stories included fewer events, and the number in employment stories declined sharply. The consistency for newspapers and topics indicates something more than a simple regrouping of events: Journalists became more selective. A typical reporter once covered half a dozen stories in a day, but that number dwindled to a few or even less. And editors, instead of running a roundup of several fires that day or week, would publish only the biggest (if they included any at all). One of the fires might become an example, representing all the fires of that sort, and the longer story might then focus on fire-related issues, but not on individual events.

The biggest downturn occurred between 1894 and the beginning of World War I, a period of turmoil in Europe that produced large numbers of news events. As the pressures from all those occurrences increased and the means for transmitting them expanded, journalists made fewer of them into news and published lengthier stories. They also began to publish interviews (Fishman, 1980; Schudson, 2001), a shocking departure that created an event at the behest of editors and under the control of reporters.

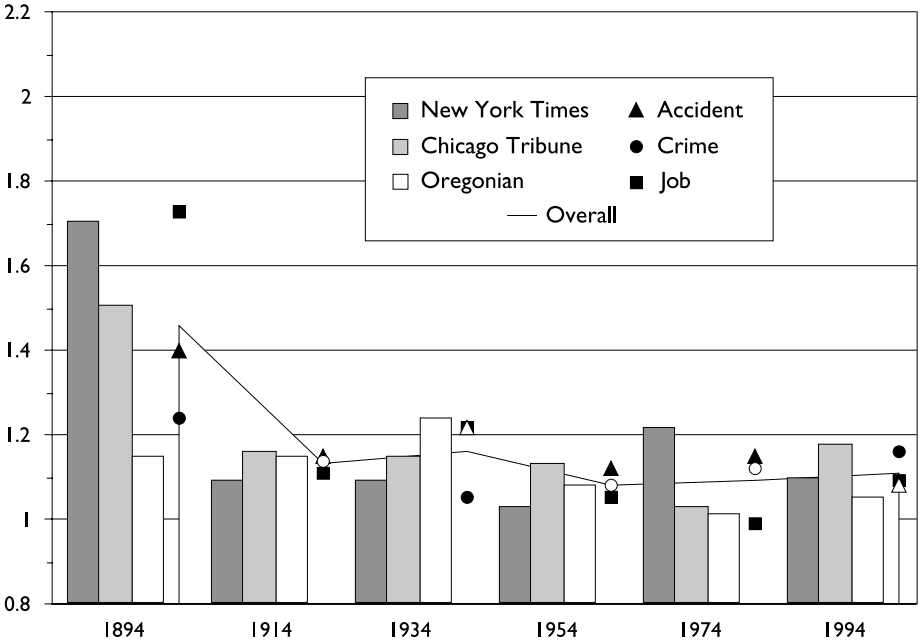

Figure 1. Fewer news events. Number of events in an average newspaper story. Source: Barnhurst and Mutz (1997).

In the wake of the change, a wide critique of the press took place. In the first instance, Irwin published a fifteen-part series on American journalism in *Collier's,* a weekly magazine leading progressive reforms. The 1911 series sought to extend progressive thinking to journalism. The problem Irwin cites is slanted news. "Newspapers…have come more and more to put their views into their news columns" (Irwin, 1969, p. 8). He saw reporters coming under pressure from advertisers, corporate buyouts, and the tendency of publishers to join the country club set. "Most news is not fact anyway", he writes, quoting a popular quip. "It is gossip about facts" (Irwin, 1969, p. 36). In the last installment of the series, he proposes a solution: event-centered news, stripped of opinion. World War I made the need for straight news even more urgent (Feldman, 2008). *The Brass Check,* Upton Sinclair's best-selling 1920 attack on the press, calls the newspaper a mental "munitions factory" building the "bombs and gas-shells" (Sinclair, 1936, p. 412) to impose ideas on and instill fear among the people. His solution challenges newspapers to be "a record of events pure and simple" (quoted in Goldstein, 1989, p. 157).

The following year Walter Lippmann, a founding dean among intellectual columnists, and Charles Merz, who became editorial page editor of the *New York Times,* published "A Test of News" in *The New Republic.* Examining three years of *Times* stories on the Russian Revolution, they call the coverage "nothing short of a disaster" (Lippmann & Merz, 1920, August 4, pp. 2-3). The *Times* had reported news events that never happened, and other headlines and captions emphasized unsupported and unsupportable interpretations. How, they ask, did such systematic misrepresentations occur? Wishing for a favorable outcome to the war, the paper published "semi-editorial news dispatches", write Lippmann and Merz, and so "a great people in a supreme crisis could not secure the minimum of necessary information on a supremely important event" (1920, p. 3).

Others agreed. In the January 1922 *Atlantic Monthly,* magazine journalist Frederick Lewis Allen, having witnessed censorship, propaganda, and "controlling or doctoring the news" during World War I, writes: "it is immensely important that the press shall give us the facts straight" (Allen, 1922, p. 44). The public was becoming aware that the German, British, and even U.S. governments had mounted propaganda efforts within the United States. The Committee on Public Information had circulated handouts, publicity materials, and exhibits, and its system of speakers and committees blanketed the country to solidify pro-war public opinion and whip up feeling against the enemy (Mock & Larson, 1968; Sproule, 1987). Scholars led the reaction, developing *propaganda analysis* to study social control in modern societies, and then spreading results widely in popular media. Schools, colleges, and adult education centers received study materials of the Institute for Propaganda Analysis from Columbia University. Analysts aimed to arm citizens against future efforts—from covert, intentional propaganda to overt or intentional influence—to slant the news.

In the decades following their critiques, the number of events covered in the average report appearing in the *New York Times* and other newspapers increased slightly and event-centered reporting advanced. But the average then fell again after 1934, a second downturn that occurred as alarms about propaganda gave way to fears that bare-bones information could become misleading. Facing the Great Depression and World War II, first United Press and then the Associated Press (Mott, 1952) pioneered news that shifted away from the "what" to the "why" of news, on the belief that attentive citizens felt overwhelmed and needed journalists to explain events.

By midcentury, political crisis and the rise of television prompted critiques of event-centered news. Beginning in 1947, the Newspaper Guild hosted key journalists' speeches on the dangers of reporting mere events. The series began with editors of the *New York Times*, *St. Louis Post-Dispatch*, and *New York World-Telegram* and had a theme: "The press…put before the reader a confusing welter of facts, [so that] vital issues were not interrelated and interpreted in understandable form" (Casey, 1963, xi).

One way to understand the changes in news events is through a model from science. Thomas Kuhn's *The Structure of Scientific Revolutions* (1996) says that craft-based knowledge forms a paradigm, a lens to see the world. When the paradigm enters crisis, scientists begin making new rules, which sometimes produces a new paradigm in what Kuhn calls a scientific revolution. Journalists, like scientists, learn their craft through action. Their laboratory is the police station, White House, or street. When news work enters crisis, journalists begin rulemaking, as they did in the nineteenth-century shift from the partisan-literary paradigm. The Great War debacle and the Crash and Great Depression helped complete the shift to modern realist journalism, which accepts rules that focus coverage on what happens, verifies facts, and demarcates news from opinion. Chronicling occurrences at first seemed the best lens for making sense of the world.

Nineteenth-century journalists resembled naturalists, who gathered unique specimens that seemed to provide an understanding of the world through storytelling. But the means soon overtook the ends (Vaihinger, 1968), because so many occurrences seemed to overwhelm the goal of describing the world. The new realist paradigm brought into focus the sorting of what happened into categories. Work processes, from covering beats to competing with other journalists, generated a set of mental tools called rubrics, such as relying on social types. Rubrics grow out of necessity when cultural

producers work under pressure, as when journalists call up known protagonists and antagonists to generate a story quickly. Journalism has produced many other *types,* fictional constructs necessary to practical work: the individual (as audience member or source), for example, versus a group, or a person-on-the-street versus someone in an official role, or a generic U.S. American versus someone defined by a local identity (New Yorker, Texan). Some are stereotypes for work (a bricklayer, a priest) or are stand-ins (the President for the U.S. Federal government). Others are grander: democracy, freedom.

Journalists classified events using rubrics that led them away from event-centered news and toward making broader judgments. Editors can make ethical choices based on a mental picture of the audience consuming news while sitting together as a family at breakfast. Faced with difficult editorial decisions, editors can call up their audience picture to counterbalance pressures they feel from other editors and the market. The picture is a useful shortcut despite being inaccurate, and so journalism employs the philosophy of *as if* (Vaihinger, 1968), relying on abstract types because of their helpfulness, not their truth. As journalists make the news every day, they produce a reality without considering the real. In the classic description (Molotch & Lester, 1974), a journalist encounters a plethora of *occurrences,* natural to the world out there and a potential resource. The job is to elevate occurrences, through set procedures, to the status of *events.* Events are useful occurrences, and journalists become skilled at identifying usefulness. Politicians' news conferences and parties' conventions serve their own uses, which journalists view with skepticism. Informants pursue their own uses for any scandal that grows from occurrences they reveal. Politicians, informers, and others pursue their own ends, but journalists find unintentional occurrences more useful, especially the accidental or serendipitous. Chance occurrences most lend themselves to journalism. These uses make journalists appear rational, competent, and original as practitioners, the same ends that the news industry supports and rewards.

News useful to journalists matters because information "does not merely go to publics, it creates them" (Molotch & Lester, 1974, p. 101). A public takes shape in the process of forming events from the raw material of many occurrences (Dewey, 1927). When reporting sticks to events, it describes a society in consensus. Event-centered reporting may signal consensus, or at least the suppression of disagreement. The shifts toward event coverage in the early twentieth century reflected the growing U.S. social consensus that reached a midcentury peak.

When groups promoting an occurrence come into conflict, the contentions define an event as an *issue.* Issues have ready-made usefulness for reporters to convey each side's arguments. The news organization itself then takes the middle ground, as rational mediator. When identifying issues, journalists unintentionally sow disharmony. The opposing sides appear irrational while journalists appear un-tendentious themselves.

After midcentury, as news moved away from event-centered coverage, the news paradigm evolved within the reality "out there" for journalists to observe and describe. The technologies of everyday life shifted as television emerged. What happened to broadcast news?

3. TV and NPR Radio: Events Also Waned in Broadcast News

The McCarthy hearings solidified thinking against event-centered news. Sen. Joseph R. McCarthy's accusations that the Truman Administration was harboring Communists brought ABC Television into national prominence, riveting national attention with live proceedings. Elmer Davis, who had left reporting for the *New York Times* to become a commentator on CBS Radio, challenged journalism conventions, saying "the best papers in the country gave their readers…a seriously mistaken impression" by paying attention to "proven liars" and imposing a "burden on the reader" (quoted in Casey, 1963, pp. 57, 61). His solution is a "mixture of news and interpretation" that can "explain the news for the customer" (1963, pp. 63-64), the emerging tendency in journalism. Other prominent broadcasters took up his critique. In his lecture, Eric Sevareid of CBS News observes "the enormous flood of facts" and finds journalists "not really preparing the American mind" (quoted in Casey, 1963, p. 79). He calls "the unpardonable sin of the present" a kind of "superficiality", with a "lack of depth", and an "absence of perspective" (quoted in Casey, 1963, p. 91). Press historian Frank Luther Mott also calls the processes "looming up as background" far more important "than most of the thousand little happenings…that fill so many newspaper columns" (Mott, 1952, p. 31). Other researchers at mid century shared Mott's view (see Griffith, 1987).

Broadcast news in its early decades continued the trends found in print. The press reduced event coverage more in the second half of the century. One way to measure broadcast events is simply by counting the number of stories in the average show. A thirty-year analysis of ABC, CBS, and NBC evening news found a consistent trend on all three networks toward fewer items per show each year (Riffe & Budianto, 2001). A later industry study suggested a rebound (PEJ, 2006), but the number of stories gives an incomplete picture of the programs.

Another way to examine event coverage is by looking inside each story to take stock (Steele & Barnhurst, 1996). How often were journalists giving information about current events? In their voice-overs, stand-ups, and other speech, television journalists shifted away

from the "what" of reporting (Figure 2). In 1968 they stuck to information a third of the times they spoke, but the share declined over the next two decades. The share went up and down in the four-year intervals between national elections, but the trend was downward. As they became less involved in basic information, television journalists spent more time offering opinions, showing agreement, and voicing reactions.

National Public Radio (NPR) news followed the same trend, without the same pressures from market competition and advertising (Barnhurst, 2003). From the 1980 election—the first when *Morning Edition* and afternoon *All Things Considered* were both on the air—NPR journalists stuck to information of events about half the times they spoke. But then the share dropped to nearly a third. To illustrate, an October 13, 1980, campaign story includes four utterances, two each totaling 19 seconds of Correspondent Linda Wertheimer and 55 seconds of President Jimmy Carter. Wertheimer opens by focusing on what happened when Carter faced hecklers at a community center. The package was straight event coverage, with terms implying a judgment coming only from the candidate. But in an October 17, 1996, report, Correspondent Joanne Silberner speaks more often and longer than candidate Bill Clinton. She opens her story with a personal exclamation and then expresses her judgment about the Clinton health care proposals. The archetypal activity—reporting what was happening—declined during the NPR political coverage.

Journalists and journalism histories tell a different story, how event-centered television news grabbed breaking news from newspapers (Donovan & Scherer, 1992). But national television and serious radio news followed the trends of the mainstream press, focusing less on information about events. Critics say that journalism should do more than cover events alone (e.g., Alterman, 2003) and say that especially television news should give more context (Gitlin, 1987). Research suggests the preponderance of network news is *episodic* rather than *thematic,* focused narrowly on specific events rather than on the circumstances behind them (Iyengar, 1991). Episodic news leaves viewers struggling to attribute political responsibility when important issues arise, and the pattern has held for decades (Feinberg, 2009).

A century ago Progressives proposed that straightforward reporting of what happens will change the world. A century later conservatives resist change by arguing for just-the-facts journalism (e.g., Ranney, 1983). The political reversal is dramatic. But progressive and conservative viewpoints of journalism are not at opposite poles. Beneath the two positions is a shared belief in a concrete reality open to observation and description. Both sides argue from a realist perspective. Modern journalism emerged as a literary activity in the nineteenth century, along with the modern novel (Hellmann, 1981), and the two kinds of writing relied on realism. For realists, all writers and their audiences have access to the concrete world, but journalists, unlike most novelists and readers, have a privileged vantage point. They focus on documenting reality full time and have routine contacts with sources who themselves observe reality. The efforts of journalists day after day build a comprehensive picture of reality, so that knowledge of the world accumulates, they say.

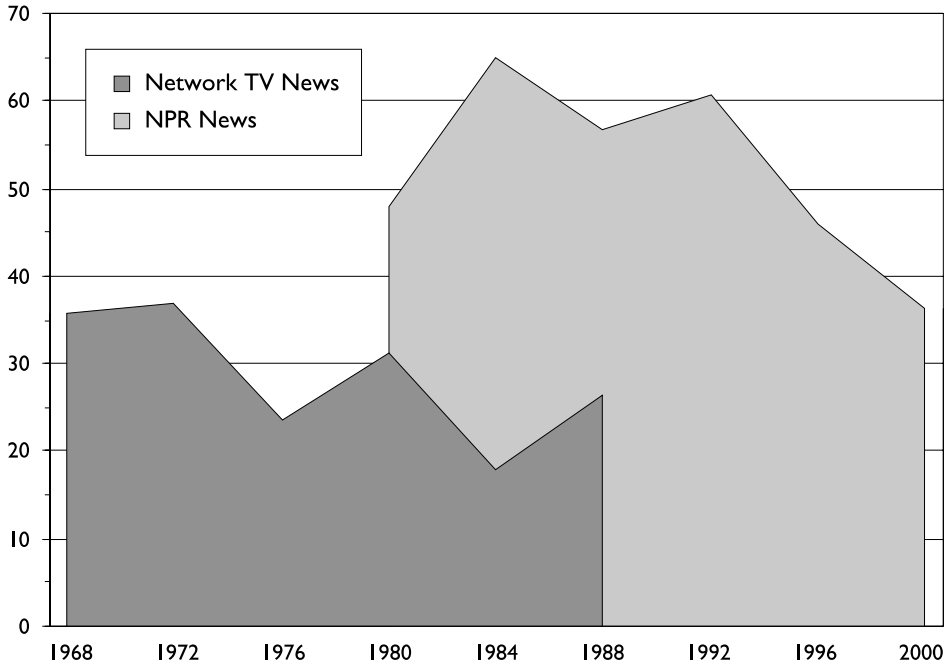

Figure 2. Less focus on information. Percentage of speech acts journalists used to give information about events. Source: Steele and Barnhurst (1996); Barnhurst (2003).

After the advent of broadcasting, the paradigm of realist news entered a new phase, where making meaning added value to coverage and journalists found that events indicated trends and issues (e.g., Boyle & Hoeschen, 2001). The job of journalism began to require a better lens for viewing what happens. Realism saw mere facts as misleading, and a standard for quality news became how well it could make events understandable. In contrast to the consensus society of event coverage, issue coverage describes a society in conflict. Issue-centered reporting may signal honest disagreement or something less hopeful, a basic contentiousness. Either way journalism helps create those meanings. The shift in realist news toward sense-making grew throughout the second half of the century, as race, abortion, gender, and other disputes polarized U.S. politics, and reached its height in the dispute over the meaning of the Watergate burglary. Over the century, first issue coverage and then partisan reporting increased, helping solidify the most intractable issues of U.S. society.

News operates to reflect and to focus, shining the light "out there" but focusing it with potential hazard. Journalists who stick to events face censure for ignoring the context and common sense. But when journalists make sense of events, they face censure for claiming too much say over what matters or for taking sides in politics. But journalists have gained ground either way, adding economic and social status through both phases of the realist news paradigm (Barnhurst, 2010). Their turn to realist fact early in the twentieth century made them stronger observers, neutral arbiters unsullied by politics, a position publishers found desirable for expanding market share (Barnhurst & Nerone, 2001). And journalists' turn to realist investigation and explanation lifted them even higher in public esteem as the profession reached its zenith around the 1970s.

When journalists justify their work, they employ not *realism* but other terms for their aims: *facts* and *truth.* They have practical definitions for both terms. Although journalists talk about events and facts almost interchangeably, facts are the larger item (White, 1970). Reporting facts carries a heavier burden than reporting events because factual coverage requires a journalist to say how the world is, and not just what happened in it. The first challenge when selecting and arraying events is to reveal facts. Journalists judge event reporting by whether it sticks to facts, and that means they try to align new occurrences with the accumulated experience of previous reporting.

Practical success with facts drives reporting toward a larger goal: the truth. Truth is the highest aim and justification of the newer journalism (e.g., Sevareid quoted in Casey, 1963). What *works* is what produces events that match the facts, but what works *best* is the producing of events that align those facts with understanding the wider world. As journalists critique each other—and as they join in the process of individual and then group innovation—they define truth by what has worked or failed in the effort to view the world. Journalists glean that worldview from the culture surrounding them, but a worldview that works tends to produce more facts, especially reliable and useful ones. Journalists judge others by the same standard. Competing political parties make conflicting assertions about what an occurrence means and advertise different claims using facts to show what candidates stand for. Journalists then do "truth-squad" stories, asking whether a statement squares with what the world is like. A claim about or an image of an event is true if it corresponds to the facts.

The job of reporting events generates a conjecture about the world (giving events their initial meaning), and through repeated event coverage—and through the resolution of issues—the guesses about things settle into established facts. Slowly knowledge of the world accumulates, a realist would say, in the form of a journalism truth, which amounts to a broader statement that corresponds to the array of facts. When new occurrences fail to fit into the meanings available for events, journalism adjusts through discussion and through trial and error. So journalists confronting the propaganda of World War I had to refocus on events, and the McCarthy hearings refocused news on the need to stand apart from occurrences and instead to emphasize issues. Both moves attempted to realign journalism with facts and truth.

Scientists also generate conjectures about the world and repeat their work in a process called replication. The efforts confirm a larger picture of the world, the paradigms they judge by "their heuristic power: how many new facts did they produce?" (Lakatos, 1974, 137). The processes are parallel for scientists and journalists, who attend to occurrences out there, formulating guesses that become either "events" or "hypotheses." Both resolve issues to arrive at facts, and both seek to establish a larger reality as "truth."

By the twenty-first century, realism came under doubt as audiences fragmented and U.S. intellectual life entered ferment. What worked in the 1970s no longer worked in the changing networked world since the 1990s. To understand the new paradigm emerging by the century's end requires a look at how the realist stock in trade of journalism fared in the digital era.

4. Online News: "Realism" about Events Persisted Online

Pulitzer prizewinner Alex Jones says that U.S. journalism ran into trouble because new technologies produce not facts but unreality (quoted in Shafer, 2009, August 27). Newer venues for news seem to blur the line "between real reporting and faking it," a former political reporter says (Mears, 2009, p. 424). "The risk is that readers and viewers—voters—won't be able to sepa-

rate reported fact from fabricated fiction." How did the "what" of news fare online?

Mainstream news outlets, including NYTimes.com, ChicagoTribune.com, and OregonLive.com, went through a period of experimentation online (Figure 3). Politics, crime, accident, and employment stories began the first decade of the 2000s by reporting more events, reversing decades of declines (Barnhurst, 2010). By 2005 they added even more events to stories, but the news sites diverged, with OregonLive.com focusing on the most events (Barnhurst, 2013). Surveys also found the number and depth of news reports decreasing as more online outlets emerged (PEJ, 2006; Rainey, 2006, March 13). U.S. journalism online was in state of ferment, but why? Journalists at the time pointed to new technology (Regan, 2000), although new media produced little revenue. Publishers invested in web editions only as necessary to block rival sites and hardly used the interactive potential of the internet (Barnhurst, 2002). Although publishers resisted new technology, journalists responded to the idea of linking events together by doing online fact-checking (Ross, 1998), so that references to events within stories increased.

But by 2010 current events declined to the levels of the 1990s (Barnhurst, 2012). The "what" of news returned to earlier patterns, as journalists began retrenching and the news outlets moved again in lockstep. The reemerging patterns suggest a missed opportunity. Journalists might have continued pursuing a linked perspective on what happens in news, rejecting the constraints of realism. Their readers were using interconnectivity to cope with the flow of information in the new century, a third of them sharing news stories on social media, half relying word of mouth, and 80 percent using e-mail links (Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010, March 1). Instead of keeping up with public habits, journalists pushed back, closing ranks around a journalist's kind of truth.

Journalists and researchers in journalism studies lamented the downsizing, financial turmoil, and competitive pressures the industry faced in the new era. But few questioned the realism behind journalists' pursuit of facts and truth. The reading public began shifting to a new regime of "what-ness," not abandoning news but finding it through aggregators, opinion blogs, and other go-between venues for recycled news content. Their move raises questions about once-common beliefs in the tenets of "quality" news offering firsthand evidence, journalists as witnesses, and the value of the neutral account. Journalists themselves helped usher in the new consensus by moving from event-centered to meaning-centered news. As the face-to-face and media experiences of audiences merged, so that "friending" and "informing" crossed almost seamlessly between online and embodied modes of contact, audiences and users found new lenses for viewing the world. Journalists at first experimented and then pulled back, returning to the familiar ground of facts and truth.

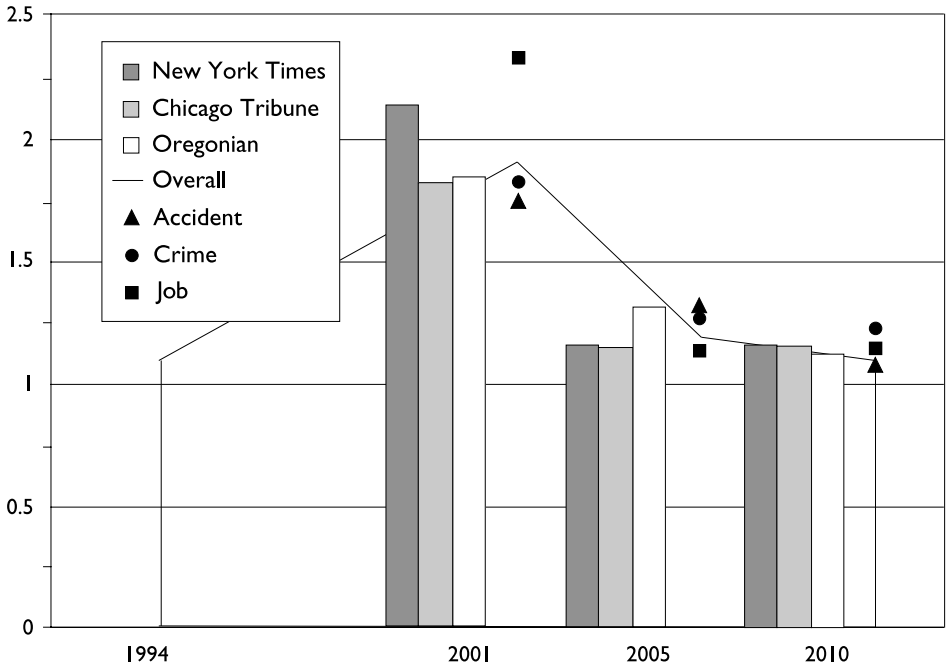

Figure 3. Events spike online. Number of events for online news stories compared to the prior number for print. Sources: Barnhurst & Mutz (1997); Barnhurst (2010, 2012, 2013).

Professional claims to factual truth have come into question in the twenty-first century. In the prevalent view, facts have two qualities: they are independent of what individuals may think about them, and they are stable in meaning over time. Together the qualities establish a view that philosophers call *naïve realism* (or *naïve empiricism*). Naïve realism assumes the existence of "events out there to be observed and appropriately described" (Mulkay, 1979, p. 35). But there are two problems with the standard of realism, and they reside, not surprisingly, in the processes of observing and describing. What does it mean to observe? Reporters sometimes go out on the streets to witness occurrences, but they can see only what happens within their range of vision. Other occurrences fall outside what reporters can observe. Interviews make the idea of observing less concrete because journalists select among sources, make the interview happen, and select questions. Does an interview by telephone without any other occurrences and physical cues count as observing? When rewriting wire stories with a local angle, are journalists observing?

"Observation involves the application of categories to sense impression" (Mulkay, 1979, p. 46). Classifying things (or persons and their states of being and doing) is an act of interpretation, and interpretations grow from expectations. What researchers and journalists *want* to see can color their perceptions and reporting, and so observing has a key limitation. As in the 1920s case of Russian Revolution coverage, in the 2000s the *New York Times* reported not observations about the build-up for U.S. invasion of Iraq but what officials providing information wanted to be true, and the pro-war stories got more dramatic play, just as did stories leading up to World War I. Unlike the earlier case, the *Times* editors a century later recanted, citing the "strong desire" of sources, the eagerness of Bush Administration officials, and reporters "too intent on rushing scoops into the paper" (New York Times, May 26, 2004). The large errors of judgment underline a limitation of reporting, because even if journalists cover only what they themselves witness, observation still involves interpreting.

What does it mean to describe? To say what happened, reporters have to draw on the language resources at hand. They tend to rely on standard wording, and some newspapers publish columns and news radio programs air commentaries that reinforce the standard. Journalists rarely make up new words but do pick up newly popular terms and phrases. Emerging trends—from "crime waves" throughout press history to so-called "metrosexuals" of the 1990s and the mistaken prevalence of "sexting" among teens of the 2000s—need only exist in sources' imaginations first to enter the vocabulary of news and then into commonsense reality (Juntunen & Väliverronen, 2010). Philosophers and historians of science have debated inconclusively how much the limits of available language narrow or constrain what scientists can conceive (Mulkay, 1979). Journalists trade less often at the cutting edges of knowledge, but their use of buzzwords can produce misleading descriptions.

The way journalists learn their craft imposes another limitation. Through responding to the reporter's work, demanding revisions, and cutting out all or part of a story, editors communicate the acceptable limits of description. The process, called *literary reason,* permeates how journalists translate their work into stories (Knorr-Cetina, 1981). The routine tasks and processes of journalism require *practical reason.* Reporters look for scoops and exclusives to stand out on the job, using *indexical reason,* the clues to mark and sort experiences and discern what matters. Using *analogical reason,* they emulate models of successful reporting and seek familiar parallels to cover unfamiliar occurrences. Relying on socially *situated reason,* they respond to economic rewards, interpersonal relationships, and external and public demands and resources. And they do all four while defending journalism as a distinct occupation, employing *symbolic reason.* All five kinds of reasoning behind news description shift the emphasis onto journalists.

The shift leads to *constructionism,* because journalists' reason is constructing news. In a fundamental difference from realism, constructionism assumes that knowledge of an objective social-world-out-there does not accumulate. Practitioners like journalists instead construct facts and truth, connected to objects in the world but following social processes. Journalism has a productive quality that social constructionism brings into relief, renewing an older meaning of the word *fact,* which comes from the Latin *facere,* to make.

A concrete example of that construction in action is the surprising notion that statistics "makes" people (Hacking, 1990). Two centuries ago, Europeans considered chance little more than a vulgar superstition. Well-informed society thought that events grew out of a set of previous conditions as a result of particular causes. But in the nineteenth century, enumeration of everything expanded, and governments as well as other observers discovered patterns in occurrences like crimes and suicides. The new science of statistics found that human behavior occurs along a bell curve. Its normal distribution indicates that, far from superstition, chance reveals a picture of the aberrant (at the extremes) but also the normal person (at the center of the curve). By defining outliers, governments and institutions can take measurements of those at the extreme edges of society, plan ways to intervene in their lives, and track the changes that result. No matter the source, statistics feed back into society, defining what people are, and so statistics make people.

The same applies to news. Although journalists avoid thinking of themselves as agents of social con-

trol, their reporting furthers institutional power over those at the social margins. News tends to emphasize occurrences at the far reaches of society, among those who strayed into crime or heroism, became or stood up against employers, faced accidental calamity or triumph, or came into or fell from political leadership. The outliers can define and reiterate the center of things, without actually pointing to the norms, through a process called *simultaneous contrast* (Barnhurst, 2007), in which saying one thing implies its opposite (as saying *black* brings to mind non-black things). Journalists consider covering marginal groups a type of progressive intervention for the downtrodden, but it does the opposite because pointing to the fringes reinforces the center. Journalism from newsrooms to websites creates models of personal identity and society (Barnhurst & Nerone, 2001), and so news makes people. When the people learn from news how others like them behave and how their society works and then act on that learning, the news has helped make them into who they are.

Social constructionism has faced a strong reaction. Historian of science Ian Hacking says that "a great fear of relativism" is one thing at work. "What are we afraid of?" he asks (Hacking, 2000, p. 4). If social interaction constructs everything, then nothing remains solid or secure, and "any opinion is as good as any other." But no one has seriously proposed that everything is constructed. Societies create three types of constructions: objects (including persons, such as women refugees), ideas (including time periods or qualities such as kindness), and something else called *elevator words.* Words like *facts* and *truth* occupy a higher (elevator) level because they try to say something about what the world is like, not what is in the world. Elevator words have two peculiar qualities: "First, they tend to be circularly defined," deriving their meaning from each other (as in the relation of facts to truth), and second, they "have undergone substantial mutations of sense and value" (Hacking, 2000, p. 23). The angry responses to social constructionism rely heavily on elevator words.

Historian Robert Darnton, who had a brief career in journalism, was among the first to apply constructionist views to journalism, concluding that reporters "bring more to the events they cover than they take away from them" (Darnton, 1975, p. 192). Stuart Hall and his co-authors from cultural studies examined British news and found that the "media define for the majority of the population *what* significant events are taking place" (Hall, Critcher, Jefferson, Clarke, & Roberts, 1978, p. 57). The next two decades of critical scholarship sustained their views (see, e.g., Hartley, 1996; Esch, 1999). In practice, constructionism finds easy evidence in journalism. In a 1920s scandal in the news, prominent New York socialite Leonard Rinelander tried to annul his marriage to Alice Beatrice Jones, a working-class girl from New Rochelle (Lewis & Ardizzone, 2001). The case turned on whether Leonard knew Alice's race, and journalists constructed Alice's race so that, in their reporting, she looked darker the more the outcome of the trial seemed to prove that she was, indeed, what then passed for "colored". Constructionists do not doubt that Alice herself existed but instead reveal how her existence took on differences according to the reporters' expectations. The journalists do not construct Alice in a concrete sense, but that sense is trivial. To say "Alice existed" has little meaning without referring to her skin color and the debate over racial identity that surrounded her body. The question was, which Alice existed, a white or a "colored" one?

Some journalists do acknowledge the role of reporters and news organizations in the construction of events. Essayist and filmmaker Nora Ephron told the story of standing outside, waiting and waiting for things to start, back when she was a young reporter for the *New York Post.* When the *New York Times* reporters arrived, the activity would begin, and she would stand there wondering, "How do they always know when an event will really start?" (Ephron, 2001, November 30). Other reporters tell similar experiences, if not for attribution. In our interview, one reporter working in the *New York Times* Washington bureau during the presidency of the first George Bush witnessed reporters in the office receive advance warning that the Gulf conflict was going to begin in a few hours. Instead of saying whether or when the war would start, the tipster just suggested the *Times* reporters put off going to dinner for a couple of hours. While journalists from lesser news organizations went to eat as usual, the *Times* reporters stayed behind and got the story. The process reiterated another constructed dimension of news by reinforcing the preeminent position of the *Times* in defining U.S. events.

Constructionism provides another explanation for changes in the "what" of news during the twentieth century. After succumbing to propaganda in World War I and after conceding to McCarthyism at midcentury, journalists did not take opposite tacks. Despite the superficial contradiction—toward events in the former case, toward explanation in the latter—both responses to the crises produced similar results. Journalists responded by reasserting their power over news itself. They took a central position in public discussion by playing the role of moderators and facilitators for correcting the ills of political life. Instead of being victims of their economic conditions and professional competition, journalists participate in social and political power, because they build useful knowledge and because they engage in practices that define what *is,* what is known (or knowable), and what matters. Every member of a society does the same, but journalists can have a greater reach. Journalists' definitions reinforce their professional standing and put them on cultural par with those who occupy posts in the formal structures

of government and business. The cultural view undermines any naïve claim of journalists' merely covering events "realistically".

But journalists take a humble, realist stance when asked. They see themselves doing the labor of events and facts in search of truth. Sociology reveals the connection of that labor to news economics and to professional status. Cultural scholarship dismantles the basic supports for realist observation and description, showing how distinctions between event-centered and explanatory news collapse when viewed through the power journalists were gaining either way. Whatever view one finds persuasive, a dramatic change has occurred in the "what" of news, the basic stuff of journalism or epistemology of their making things known. Journalists and the attentive public feel inundated by information, but news reports include fewer events, no matter how one measures them. The incongruity between beliefs in the glut of news events and the evidence of their decline exposes a misapprehension among journalists about their work. Audiences seemed able to adapt, riding on the waves of change in receiving news, but journalists in practice pushed back, returning to older patterns instead of reassessing facts and truth. Their retrenchment distanced news from the new paradigm of the digital era.

Of course "journalists" here extends beyond individual reporters and editors, to the occupation of journalism, the print, broadcast, and digital industries that trade in news, and the systems of regulation surrounding public information and intellectual property. The individual journalist lives enmeshed in a surrounding society that *expects* journalism to be realist. That is one reason that mainstream U.S. journalism found itself in trouble in the new century. Events declined in news content just as the reading public gained access to more sources of news, eroding the credibility of journalism. The social world shifted at the end of the twentieth century, trapping journalists in realist expectations just at the time when they needed another perspective. And so the woes of American journalism express something deeper than trade and market competition, a problem of epistemology going back to the foundation of realist news.

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