Introduction:

Technology has significantly impacted the ways in which humans communicate and interact not just with each other, but also with their environment. Through internet platforms, such as social media sites like Twitter, people are able to communicate and interact with strangers across the globe and report on events happening around them in real time. These communication changes have impacted the way that society consumes their news and, as a result, are changing the ways in which journalists must interact, communicate, and engage with their audiences. News consumption “was previously limited to reading the newspaper or listening to a news bulletin on radio, or watching it on television. Today, however, audiences can get an “instant helping” of the latest news (literally minutes or hours old) on the Internet, or receive updates on their mobile phone, in their email inbox or on their social network pages” (Stassen, 2012). The field of journalism is undergoing an identity change and journalists must reach past the traditional mediums of television, radio, and newspapers, and enter the world of their audience—the internet. A recent survey conducted by Pew Research shows that “the internet has surpassed newspapers in terms of popularity as a news platform and ranks just behind television. The Pew Internet survey also suggests that “peoples’ relationship to news is becoming portable and participatory”” (Hong, 2012). News broadcasters have adopted practices, such as using Twitter and corporate websites to present news, in response to the
changing needs of their audiences. This research paper seeks to understand how well the journalism field is adapting to the expectations that technology has placed on them.

**Purpose of the Study**

The purpose of this case study will be to understand how the media used technology to meet the expectations of their new online/networked identity when reporting on the recent Boston marathon bombings. This event was heavily covered by the media and online technologies, such as Twitter, were used extensively to report updates. Despite their use of modern technology, the reporting practices of the media during this event were met with a great deal of criticism due to numerous inaccurate reports. This research paper will look at how the media incorporated the use of social media, specifically Twitter, into their reporting practices.

**Theoretical Perspective**

The theoretical framework used to guide this study is that of the uses and gratifications theory. This approach suggests that audiences control media as opposed to media controlling audiences. Individuals look for “certain types of media messages in order to fulfill existing needs” (Laughey, 2007) which, therefore, makes media a goal oriented medium—audiences are always actively seeking out needs gratifications. They can be characterized as being “active, discerning, and motivated in their media use. The focus of the theory is on what people do with the media rather than the influence or impact of the media on the individual” (Quan-Haase & Young, 2010). This theory makes a clear distinction between the gratifications that audiences obtain and gratifications that audiences seek. Gratifications obtained “refer to those
gratifications that audience members actually experience through the use of a particular medium” (Quan-Haase & Young, 2010). Gratifications sought, in comparison, “refer to those gratifications that audience members expect to obtain from a medium before they have actually come into contact with it” (Quan-Haase & Young, 2010). A central idea of this theory is that the gratifications that audiences obtain can differ from what they sought which, as a result, creates a gap that predicts the satisfaction and dissatisfaction level that the individual experiences from using a particular medium. When a medium meets an expected gratification the audience will use that medium regularly. In contrast, a medium that does not meet expected gratifications will not be used again. Twitter is a medium that appears to be meeting the gratifications of its audience and, as a result, their audience is increasing their Twitter usage. A major attribute that may be bringing audience members back is that social networking allows for a high level of interactivity “that adds value through its ability to facilitate meaningful conversation with, and between users” (Stassen, 2010). Users have the ability to express themselves, take on roles as citizen journalists, and connect with like-minded people quickly, effectively, and cost-efficiently (Stassen, 2012). Their needs to be participative are met through sites such as Twitter and usage on these sites is extensive around the world. To stay relevant with what their audiences want and need, journalists must effectively adapt to the technological preferences of their audience.
Research Question

To understand how journalists are adapting to the expectations of their audience and using new technology in their reporting practices, this research paper is guided by one central, overarching question and one sub question to narrow the study:

Central Question: What role does new technology play in the reporting practices of journalism field?

Sub question: How did journalists incorporate the use of Twitter into their reporting practices while reporting on the Boston marathon bombings?

Limitations/ Delimitations

To narrow this study and create realistic parameters for the data collection process, this paper will look at the usage of Twitter during the Boston marathon bombings—Twitter was a heavily used platform for distributing news information during this event. Social media sites such as Facebook and YouTube, major broadcasting websites, and personal blogs of journalists will not be included in the study. To further narrow the search, data collection was limited to the Twitter accounts of three major broadcasters who were active on Twitter during this time—Global National, CBC Top Stories, and CTV National News.

One major limitation that may influence the findings of this study is that Twitter allows users to delete their tweets. This ability means that news broadcasters may have deleted tweets
reporting inaccurate information, deleted tweets with links that are no longer active, or replaced inaccurate tweets with accurate ones without any indication of a retraction.

**Literature Review**

**Traditional Journalism**

Twentieth century journalism was an ‘authoritative communication environment’ that clearly distinguished the journalist from the audience. Journalists were recognized as trained professionals that were grouped together through “organizational, professional, or cultural status” (Heinrich, 2012). Belief systems, such as objectivity, were ideals associated with journalists that helped them operate in a closed production sphere. This meant that they determined what was news worthy and how to present news worthy information to the public (Heinrich, 2012).

Traditionally, journalism followed a one-way communication model that sent information from a sender—the journalist—to a silent receiver—the audience. This model is increasingly being replaced by a multidirectional transmission flow and, as a result, journalists are facing “chaotic” information flows that span the globe” (Heinrich, 2012). The internet has introduced an interesting dynamic to the journalist-audience relationship which allows the audience to challenge, and interact with, journalists who, traditionally, have been the sole providers of news. Journalistic corporations are now operating as a single voice among many, “in the midst of a vast mix of information providers who fill the information space across the globe with a seemingly endless stream of information” (Heinrich, 2012). Technology has changed societal
interaction patterns and introduced a many-to-many communication exchange. “Journalists now no longer control the gates of information flows, as bloggers, activists or citizen journalists are seizing the distribution tools on offer” (Heinrich, 2012). Journalists are now finding themselves in an unfamiliar position. They are no longer solely responsible for deeming what is newsworthy and, with the introduction of social media platforms that allow people to communicate with each other across the globe instantaneously, are no longer the first ones to provide breaking news. The audience now tells the media what they want, as opposed to the media telling the audience what they want (Heinrich, 2012).

The Impact of Technology on News Consumption and Journalism

Social media has largely contributed to the identity change that the journalism field is currently experiencing. These sites, such as Twitter and Facebook, promote “the exchange of user-generated content” (Greer & Yan, 2011) and are becoming increasingly popular. Research shows that 75 percent of “U.S. online news users get news through forwarded e-mail and social media, and 52 percent share news links through social media” (Greer & Yan, 2011). A 2010 survey done by Pew Research shows that the “Internet has surpassed newspapers in terms of popularity as a news platform and ranks just behind television” (Hong, 2012). The survey also found that 33% of people who own mobile phones access news content on their phones and that 37% of internet users share news content through their social media accounts. These findings indicate that the relationship that people have with their news is becoming both portable and participatory (Hong, 2012). News users are now both information consumers and
content producers as they receive, comment on, and then circulate news through their social
media networks (Greer & Yan, 2011). The internet allows social media users to selectively pull
news information that is of interest to them as well as actively push news information back into
the online sphere (Heinrich, 2012).

Twitter has attracted “a virtual army of citizen journalists ready to tweet at a moment’s notice
from their mobile phones or mobile devices” (Murthy, 2011). There is a seamless, fast-paced
flow of both graphic and textual information that is made available by everyday people and this
aspect of social media is what makes it a successful news source (Murthy, 2011). Anyone with a
smartphone is capable of creating a tweet and attaching a picture that can be tweeted to their
social network in less than 60 seconds. This technology means that journalists no longer have
the sole responsibility of reporting on a newsworthy event. They now have to share that
responsibility with the first people on scene, whether it be a citizen journalist or a 13 year old
teenager with their first cell phone.

Another major attribute of social media is that it provides users with a platform that allows for
a high level of interactivity. Twitter is valuable, in part, through “its ability to facilitate
meaningful conversation with, and between users” (Stassen, 2010). Research suggests that
people use social media to interact with like-minded people and that this form of interaction is
‘more fun’ than traditional media channels, such as through letters to the editor. The fast-
paced flow of communication and interaction that result from social media foster a sense of
community “that transcends anything offered by mainstream media” (Stassen, 2010).
A study conducted by Stassen (2010) indicates that social media allows news consumers to be actively involved in the ‘news-creation process’ which allows for instantaneous feedback and interaction. These aspects of social media create a richer news experience for users when compared to traditional news mediums that were focused on one-way communication (Stassen, 2010). To enter online communities and continue to be valuable news sources to their audience, journalists must join in on the conversation and adapt their reporting styles to include technology used by the community.

The emergence of electronic communication, made available through social media sites such as Twitter, is characterized “by its global reach, its integration of all communication media and its potential interactivity” (Heinrich, 2012) that will forever change the way society consumes news. The culture of exchanging information is becoming much more fragmented, decentralized, and diversified (Heinrich, 2012). Digital media encourages immediate transmission of information through the use of low-cost technologies and this has enabled alternative information providers, such as citizen journalists, “to gain a voice in the global communication exchange market” (Heinrich, 2012).

**Changing Roles, Responsibilities, and Identities in Journalism**

Technology has provided a platform that gives the general public the ability to both deem what is newsworthy and participate in content creation. Creating, sharing, and spreading “newsworthy information is increasingly practiced outside the narrow confines of financially strong newsrooms. These ‘nonmarket actors’ support what can be defined as a ‘paradigm shift’
away from ‘industrial-style content’ to the collaborative, iterative, and user-led production of content by participants in a hybrid user-producer” (Heinrich, 2012) role.

News organizations, first and foremost, have to meet the responsibility of adapting to the emerging sphere of networked journalism. Heinrich (2012) suggests that this can be done through acknowledging, and understanding, the role that technology, specifically social media, is playing in society. This will provide the field with necessary resources to integrate methods other than traditional sources, such as newspapers and radio, into their reporting practices. He advises that this integration must extend past simply allowing news consumers to comment on online news articles and posting occasional videos on YouTube. A structural reorganization is required that addresses the day-to-day practices of news work (Heinrich, 2012). Social media editors and the use of crowdsourcing are two important assets that Heinrich (2012) believes should be implemented in every newsroom. Using the connectivity that social media offers, collaborating outside the professional realm, and networking with other journalists through social media are all viable ways of adapting to technology. These adaptations, however, come with new responsibilities. Journalists will need to expand the boundaries of their networks which, as a result, will “demand greater transparency and attribution of information providers” (Heinrich, 2012).

The change in roles and responsibilities that technology has imposed on journalists is not necessarily a negative imposition on the field. If used correctly, social media can be a valuable tool for journalists in their search for story leads (Stassen, 2010). Picard (2009) suggests that,
through the use of online tools, journalists can get information, story ideas, and feedback from people in their online networks.

Consistent interaction with news consumers will help journalists develop a new relationship with their audience that differs from the “arms-length connection that traditional mass communication created” (Picard, 2009). This new relationship will reflect the changing news consumer behaviours and expectations which can, potentially, increase information transmission between journalists and audiences. Additionally, establishing an online presence can effectively promote news organizations and help build an online community who feel closely connected to the news organization (Stassen, 2010).

Research suggests that news organizations are starting to adapt to the online world. Both organizations and individual journalists are establishing Twitter accounts which allows news consumers to follow and interact with them online. Twitter accounts are not used only for attracting followers, however, and journalists are now using the network to “become followers of influential people who may give them tips on breaking news stories” (Stassen, 2010). Through the use of social media journalists can expand their professional networks and gain access to news information that, traditionally, has not been so easily accessible.

The journalistic field is being met with an increase in information flow through digital networks as well as a change in the needs of news consumers. Heinrich (2012) suggests that the “question remains how journalistic organizations decide to fulfill” the responsibilities that
Procedures

This research study analyzed how three major news broadcasters in Canada used Twitter to report on the Boston marathon bombings. A content analysis was done on the Twitter accounts of CTV National News, CBC Top Stories, and Global National. Data was collected on account activity made between the dates of April 15, 2013, which was the date of the Boston Marathon and the subsequent bombings, and April 19, 2013, which was the date that the accused bombers were apprehended by police. All tweets were analyzed and then categorized into one of six categories: tweet to website link, tweet, retraction/correction, retweet-affiliated, retweet- nonaffiliated news organization, and retweet- independent. The ‘tweet to website link’ category refers to tweets that linked to an official news report located on the webpage of the news organization. The ‘tweet’ category refers simply to tweets made in regards to the Boston marathon bombings that did not link to an official report. The ‘retraction/correction’ category refers to any corrections or retractions that the news organization mentioned in tweets regarding reports on the Boston marathon bombings. The ‘retweet-affiliated’ category refers to all retweets of tweets made by journalists working for that news organization. The ‘retweet- nonaffiliated news organization’ category refers to the retweet of other news organizations, and the ‘retweet- independent’ category refers to the retweets of the general public, police departments, etc. Only twitter posts that mentioned the
Boston marathon bombings were used during the data collection process and categorized. All twitter posts made during April 15, 2013 to April 19, 2013 that were not relevant to the bombings were disregarded from the study. Search terms used when analyzing tweets included “Boston bombings”, “Boston”, “Boston Marathon”, “Bombing suspects”, and all hashtags with the words “Boston” in them. To ensure that all posts relevant to the bombings were categorized, all links that were ambivalent or not obviously related were clicked on for clarification.

The data collection process and data analysis process occurred simultaneously. A journal was used to record observations and interpretations made during the collection and categorization process. After the data collection and categorization process was complete, all data was entered into a table to determine how often each type of post was made.
Findings/Discussion

<table>
<thead>
<tr>
<th>News Organization</th>
<th>CTV National News</th>
<th>CBC Top Stories</th>
<th>Global National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweet to Website Link</td>
<td>14 (25%)</td>
<td>52 (31%)</td>
<td>60 (87%)</td>
</tr>
<tr>
<td>Tweet</td>
<td>15 (26%)</td>
<td>21 (12%)</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>Retraction/Correction</td>
<td>0 (0%)</td>
<td>1 (0.6%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Retweet- Affiliated</td>
<td>27 (47%)</td>
<td>86 (51%)</td>
<td>6 (9%)</td>
</tr>
<tr>
<td>Retweet- Nonaffiliated News Organization</td>
<td>0 (0%)</td>
<td>0 (1 reference to CNN, 1 reference to AP, and 1 reference to Reuters). (0%)</td>
<td>0 (1 reference to CNN)</td>
</tr>
<tr>
<td>Retweet- Independent</td>
<td>1 (2%)</td>
<td>10 (6%)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>170</td>
<td>69</td>
</tr>
</tbody>
</table>

Table 1: Number of posts made for each category of analysis between the dates of April 15, 2013 and April 19, 2013. All percentages rounded up.

Tweet to website link

All of the news organizations, especially Global National, used Twitter to post links to their websites. Published tweets of this nature included a brief summary of what the link contained and led to full length articles, live press conferences made by both President Obama and the Boston Police Department, and online videos, all of which were located on the website of the news organization. Twitter proved to be a useful tool during the Boston Bombings to provide
quick updates on events and also provide readers with the option of clicking on the full length article accompanying the update if they wanted more information. This technique is also an effective way of increasing traffic to websites, which, in turn, may increase the news organizations audience.

*Tweet*

Overall, the news organizations published relatively few tweets. CTV National News was an exception and fully utilized the ‘news in 140 characters’ concept that has become synonymous with Twitter. They published single tweets to their Twitter account as a way of providing their readers with quick updates on events of the Boston bombings as they unfolded. CBC Top Stories and Global National mainly used Twitter to link readers to full length articles or online videos. This suggests that they are not taking advantage of Twitter's ability to provide quick updates. They are using their Twitter accounts as a means of directing readers back to their websites and online videos.

*Retraction/correction*

The news organizations in this study rarely used Twitter to post retractions or corrections to previous news reports. This was a surprising find because the reporting process during the Boston marathon bombings was criticized due to the number of false reports that were being circulated. CBC Top Stories and Global National each only posted one correction. These findings may have been influenced by the fact that news organizations can easily delete tweets. Incorrect tweets may have been deleted and then replaced with corrected information.
Many journalists working for major news organizations maintain personal Twitter accounts and update them regularly. It was observed during the data collection process that news organizations regularly retweeted posts that journalists who were affiliated with them published. Retweets from affiliated Twitter accounts accounted for most of the Twitter activity for both CTV National News and CBC Top Stories. This finding suggests that news organizations are using a designated, official Twitter account as a means of consolidating news updates, reports, and online broadcasts that their journalists are publishing. This technique effectively provided news consumers with access to news updates from multiple perspectives all in one Twitter feed. News consumers were able to view pictures from journalists in the field, live updates from journalists reporting on scene, and links to articles all in the same place.

None of the news organizations that were analyzed in this study retweeted the tweets of other news organizations. This is not entirely surprising as news organizations do not want to send their readers to the websites of other news sources. This may, however, indicate that the news organizations in the study are not using social media to its full networking potential. Twitter offers journalists the ability to create huge networks of professional news sources located around the globe but the results of this study show that there is very little interaction between news organizations through Twitter accounts. Alternatively, these news organizations could, quite possibly, be monitoring other Twitter accounts and getting story leads from them without
referencing them or retweeting them, which would keep readers on their webpages and prevent them from visiting the pages of competing organizations.

Retweet- independent

The news organizations in this study rarely retweeted independent sources and, in general, retweets were reserved for retweeting journalists who were reporting for them. CBC Top Stories retweeted 10 independent sources, all of which were either from the Boston Police Department, the Governor of Massachusetts, and the Mayor of Massachusetts. None of the news organizations in this study retweeted published comments made by the general public or ‘citizen journalists’. One reason for this result is that the news organizations may have wanted to avoid inaccurate reports. While the Boston Police Department, the Governor of Massachusetts, and the Mayor of Massachusetts are recognized as credible sources, the general public is not. It is difficult to sort through mass amounts of tweets made by the public and check them for accuracy. The lack of independent retweets, however, does not indicate that news organizations were not monitoring public twitter accounts. News organizations may have been using the tweets of the public as story leads.

Conclusion

Twitter was used extensively to report updates to the public during the Boston marathon bombings. One surprising finding was that none of the news organizations in this study interacted with their audience through twitter posts. Twitter was used mainly as a way of posting links to organization websites, tweeting quick updates, and retweeting the posts of
affiliated organizations or journalists. These findings suggest that news organizations are adapting to the expectations that technology is placing on them but also suggests that they may not be using social media to its full potential. Social media platforms, such as Twitter, are widely used as platforms for connecting, communicating, and interacting with people across the world. News organizations appear to be providing content that allows their readers to connect and communication with each other but are not, however, joining in on the conversation.

Understanding how journalists are adapting to the online world is important in understanding how the field can stay relevant and useful to its audience. By learning how their audiences use technology, such as social media, journalists can adapt their processes to ensure that they meet their expectations. The flow of news moves quickly and content is provided by anyone with access to an internet connection. By learning to work with news consumers, journalists can adapt to their changing identity.
References


