Abstract
Political groups on social networking sites enable a new type of collaborative, political discourse among citizens. In this study, we show how political discourse in social media is distinct from prior studies of political groups on the Internet. Specifically, we use network analysis in combination with communication theory to examine conversational social networks that emerge from direct addressals between participants in 10 discussions on the Tea Party Patriots Facebook page associated with the shooting of US Representative Gabrielle Giffords. Our findings identify singling out of other participants as a key tactic for clarifying and questioning inaccurate information; apply social network analysis to identify different behaviors between networks and describe the elimination of dissent from the Tea Party Patriots Facebook page over time. Important questions of how users experience political discourse online, including the impact of the traceless removal of discourse by group administrators are framed in the conclusion.

1. Introduction
Political groups on social media sites are often viewed as being analogous to political groups in the physical world [11]. Researchers have debated the similarities and differences of political interactions online and offline and there are still significant questions about the manner in which the Internet facilitates political discussion [36]. Though research has begun to examine how political groups function online, there are a number of contributing factors to outcomes of the group such as technology selection and leadership involvement in the discourse.

In this paper we describe how one political group’s social media presence (Tea Party Patriots) facilitated interactions in the context of a single, dramatic event – the shooting of United States Representative Gabrielle Giffords on January 8, 2011. It is our intention to illustrate how the network of interactions sheds light on how political groups function online. Though not generalizable, the result is a description of the specific events of discourse, relationships between participants in relation to these events of discourse and an explication of how a pivotal form of political discourse – dissent – is enacted and managed through social media.

How users participate in political discourse using technology is influenced by the technology they use and the same technology is frequently applied differently depending on the context. In fact, the diversity of technology uptake is a well-established premise in the study of technological mediation in groups [29]. The study focuses on the uptake and use of social media ICTs by politically affiliated groups, and the resulting new forms of political discourse. We are interested in how communities of discourse form, how they evolve and how individuals behave within these communities. This is both a new class of political discourse analysis and a new class of computer mediated communication.

The research presented here fills a gap in prior work by focusing on comment-based discourse on the Internet. Previous research addressing user comments in online communication systems has focused on the best ways to analyze and predict what stories and comments will elicit the most responses [33] and the nature of the responses elicited [22]. Prior analysis of comments in online discussion spaces also illustrates that network structure and participation vary along dimensions of time [15] and discussion topic [37]. These findings in the virtual space mimic conversational activity found in the physical space [1].

Conversational networks of discourse in social networking environments have not yet been thoroughly examined, and therefore we lack the understanding that is necessary for the effective design, development and facilitation of political discourse in these spaces. In this study, we analyze subsets of conversational discourse between individuals in the context of the Facebook Group “Tea Party Patriots,” the largest Facebook group (847,000 followers) associated with the “Tea Party” political organization in the United States.
Our study incorporates the time period of January 8 – 16, 2011 and focuses on ten parent posts made by administrators of “Tea Party Patriots,” and the comments that followed. The ten parent posts are topically associated with the attempted assassination of US Representative Gabrielle Giffords in Arizona on January 8, 2011. Our dataset includes the complete comment threads from the “Tea Party Patriots” page during the timeframe and the comments reflect both constructive and flaming behavior, as conceptualized in prior studies [17].

By focusing on a narrow set of discussions related to a provocative real world event this study contributes an understanding of how individuals who participate in a technologically-mediated political group react through conversation with other members of the group. We use a mixed methods approach by combining social network analysis with content analysis to identify support and dissent roles in conversational networks within the group. We note that individuals who voice dissenting views are sometimes eliminated from the conversation, and how this is not evident to other participants. The analysis of the networks of discourse and the identification of a form of censorship within a group has many implications for the design and implementation of open spaces for political and societal discourse online.

2. Literature Review

**Online Communication and Censorship**

Bebbe and Masterson [2] define leadership in small groups as “behavior or communication that influences, guides, directs, or controls a group.” Leaders have the ability to build the group and influence its focus throughout its lifetime. Online forum leaders are usually identifiable by the proportion of messages they initiate, compared with other users and the language they use [7; 24]. Although leadership is usually informally or formally recognized within a group, leaders are not always in control of the dialogue that takes place [2]. As groups evolve over time, the original discourse may deviate from the initial leadership prescribed topics [9].

Furthermore, language used within the forum space influences user perceptions of leadership. Cassell, Huffaker, Tyersky, and Ferriman [7] note, “In an online forum in which no nonverbal cues were used, language is the only behavioral clue to identity.” As a result, language is used as means of expressing and observing power within an online community. Brownlow, Rosamond, and Parker [5], found that “speakers who talk more and use language that involves direct and specific features, as well as interrogation (‘what do you mean?’) or interruption rather than hedges (‘I kinda feel’) or indirection, are judged as ‘powerful’ [5]”. Because of the lack of nonverbal messages in the online environment, powerful messages become more important than they would be in the physical world. As a result, linguistic power is associated with leadership.

One style of discourse leadership is the removal of dissent. Due to the lack of nonverbal communication or paralanguage, online leader imposed censorship takes a much more direct form online. Organizational leaders can display their authority by censoring members, cuing users to their subordinate role [6]. Administrative censorship is a key part of controlling and directing conversation in online forum spaces [8]. Administrative censorship in an online environment can manifest itself in numerous ways including post deletion and membership revocation.

Online censorship can also be self-imposed. Noelle-Newmann’s [25] spiral of silence theory suggests that members who do not agree with the majority opinion of the group will not speak up due to fears of being ostracized by the group. In an online political space, it is likely that such self-censorship would only occur from those individuals who were party loyalists as many individuals who do not agree with the group viewpoints may to participate to incite heated discourse.

These forms of censorship come with their own challenges and consequences. Group members who feel censored unfairly are likely to retaliate by joining and posting on the group through an alternative account, or protesting the group’s behavior outside of the forum. Additionally, censored individuals may establish a weakened identity towards the larger group, which negatively affects feelings of inclusion and belonging [31]. In this study we do not analyze other outlets to identify the existence of discourse about the elimination from the Tea Party Patriots group, but we note it as a place for future research.

**Social Networks and Conversational Discourse**

Until recently, the analysis of social networks and their influence on information exchange has been mostly isolated to physical networks [14]. Social networking sites allow for technologically mediated engagement to occur in multiple ways. Participants can post to the larger group or utilize a mechanism of direct addressal such as “@” to single out a comment to another individual in the public group. This singling out occurs in the public forum and is seen by everyone.

In addition to formal direct addressal mechanisms, individuals utilize informal direct addressal
mechanisms, such as a user’s name. Since no special technological attention is drawn to informal direct addressals nested in text, the informal direct addressal is less likely to be noticed than a formal one that notifies the user of the presence of a remark directed towards them. Comments that contain a direct addressal to another participant within the parent post discussion establish a conversational subset of interactions within the parent posts. These networks of conversation are more explicitly identified than previous research on conversations within larger scale forums and allow for a richer analysis of the networks of discourse that emerge in an open forum [10].

Early research on political groups on the Internet within USENET found that political discussion within USENET was more popular than in other groups [13]. Specific activity within these groups found that leaders of discussion threads play an integral role in facilitating the discussion by both initiating topics and continuing to participate as the discussion develops. More recent research on USENET illustrates that such technologies expose individuals to other political and cultural viewpoints even when individuals choose to only associate with one group [18]. This exposure is the result of crosscutting discussion threads between individuals of different viewpoints within the context of a defined group and can lead to heated discourse. More recent research on political discussions within non-political groups shows that political discussions tend to be more active than others [12].

There have been many attempts to develop visualization technologies that make sense of large unstructured conversations in online forums [19; 28; 30; 34]. These technologies have been developed to facilitate a better understanding of the information contained within a system and identify who the important actors are. This information, coupled with other aspects of individual behavior in social networking sites allows for the identification of discourse roles [3; 35].

Recent research on political discourse in social media analyzed Facebook during the 2006 and 2008 election cycles. These studies analyzed how candidates utilized social media to engage supporters [32]. Analysis that built upon the 2006 midterm election cycle discovered that individuals utilized social networking sites to engage with others who shared their viewpoints and political beliefs [16; 26; 27]. Other research in non-political Facebook groups has identified constructive discourse in groups centered on controversial topics [20].

The preceding section illustrates the existence of numerous threads of research that influence the analysis of conversational discourse on the Internet in the political domain. The activities that individuals participate in online do not occur in isolation. The context of the group and individual motivations play a significant role in the direction and tone of the activity. The context of controversial discussion topics allows for an interesting examination of the attitudes of individuals in a politically affiliated group. The following findings offer a significant initial contribution to understanding how individuals and group leadership shape and participate in political discourse on the Internet.

3. Methods and Sample

The sample consists of the 10 parent posts and the associated comments from the Facebook Group, “Tea Party Patriots” that addressed the shooting of United States Representative Gabrielle Giffords. In this paper, we use the term “parent post” to describe a group administrator’s entry to the main Facebook Group Page of the Tea Party Patriots. Any Facebook follower of the group can comment on these “parent posts”. The comments to these parent posts can be deleted both by individuals who post them and by the administrators. Within these parent posts, individuals participated in conversation using mechanisms of formal direct addressal such as “@” or informal mechanisms such as using someone’s name.

We analyze 10 parent posts from January 8, 2011 – January 16, 2011. These 10 parent posts represent the entire set of parent posts associated with the January 8, 2011 shooting of Representative Giffords on the Tea Party Patriots Facebook Group page and represent a politically tumultuous time in which many were blaming members of the Tea Party for the violent rhetoric that may have contributed to the shooting.

The parent posts were collected no less than 8 days after the initial parent post and parsed using a script used in previous parsing efforts of Facebook Groups (Mascaro & Goggins, 2011). In total, the 10 parent posts received 5,925 comments from 2,450 individuals. After the parsing, the comments were coded for the presence of a direct addressal. A direct addressal was identified by the presence of “@” followed by a name or by using the name of another individual within the discourse without “@” preceding it. In the first case where “@” was utilized, an individual would be notified of the comment addressed to them whereas if their name was used without “@” they would not be notified and would have to seek out the direct addressal without notification.

In total, 926 direct addressals were identified from a total of 529 individuals. We did not include any comments that did not contain a direct addressal in our analysis, as they did not represent an explicit
conversation among individuals. Following the identification of direct addressal behavior, pairs of individuals were enumerated to construct a weighted, directed social network for each of the 10 parent posts and the larger network of all individuals that commented within the 10 parent posts. This construction of a social network and generation of social network measures of betweenness, in degree and out degree was done utilizing the social network visualization and analysis tool Gephi (gephi.org). In the included network diagrams, nodes are representative of actors and the ties between the nodes represent conversational activity. The size of the nodes indicates overall degree.

After the construction of the networks for analysis, the researchers identified key individuals based on the social network measures generated by Gephi. These individuals were then coded as supporters of the Tea Party, Dissenters of the Tea Party or Neutral based on the collective nature of their comments. We label a subset of these individuals in the network diagrams in the Findings (Section 5).

4. Research Questions

We seek to understand conversational mechanisms within a larger social networking space through analysis of conversational networks related to an acute news event. This understanding can help identify important actors within a larger stream of discourse and better inform the design of social media sites intended for discourse. This study utilizes a controversial topic to allow for the analysis of a large amount of discourse. It is likely that behavior within non-controversial topics may differ. The following research questions are presented to guide our study and seek to build a foundation for further research:

1. To what extent does conversational discourse exist within social media related to a controversial news event?
2. How do individuals utilize conversational mechanisms to address each other?
3. To what extent are advocacy, dissent and the elimination of participation identifiable through temporal comparison of parent post networks?

5. Findings

Table 1 provides descriptive statistics of the activity within the 10 parent posts from the Tea Party Patriots group on Facebook presented in chronological order. Overall, there were 5,925 comments from 2,450 individuals in response to the 10 parent posts. In total, 926 (15.6%) comments had direct addressals from 529 (21.6%) individuals.

The most active parent post (#3) occurred hours after the shooting, receiving 1,632 comments. This parent post included an article about Tea Party activists voicing their disbelief at the shooting. The least active parent post (#8) occurred four days later, receiving 82 comments and was a link to an interview with a Tea Party leader about the shooting. The other parent posts that garnered the most activity included parent posts 4 and 5 that discussed the state of political discourse in the US in regard to the shooting. The other less active posts, numbers 6 and 9, detailed Tea Party activity in the media after the shooting.

<table>
<thead>
<tr>
<th>Parent Post</th>
<th>Comments</th>
<th>% Direct Addressal</th>
<th>% of DA with @</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>560</td>
<td>6.25%</td>
<td>17.14%</td>
</tr>
<tr>
<td>2</td>
<td>709</td>
<td>19.75%</td>
<td>34.29%</td>
</tr>
<tr>
<td>3</td>
<td>1632</td>
<td>23.53%</td>
<td>43.75%</td>
</tr>
<tr>
<td>4</td>
<td>882</td>
<td>9.07%</td>
<td>27.50%</td>
</tr>
<tr>
<td>5</td>
<td>787</td>
<td>15.63%</td>
<td>32.52%</td>
</tr>
<tr>
<td>6</td>
<td>305</td>
<td>12.46%</td>
<td>42.11%</td>
</tr>
<tr>
<td>7</td>
<td>332</td>
<td>6.63%</td>
<td>18.18%</td>
</tr>
<tr>
<td>8</td>
<td>82</td>
<td>8.54%</td>
<td>28.57%</td>
</tr>
<tr>
<td>9</td>
<td>236</td>
<td>12.29%</td>
<td>34.48%</td>
</tr>
<tr>
<td>10</td>
<td>400</td>
<td>17.00%</td>
<td>55.88%</td>
</tr>
</tbody>
</table>

Table 1. Overview of Direct Addressal Behavior

Similar to how comment activity varied by parent post, direct addressal behavior varied. Of the 926 direct addressals, 354 utilized the @ sign (38%). The remaining direct addressals were identified through coding for the presence of someone’s name followed by a comment. The relatively low number of posts that utilized technologically afforded direct addressal mechanisms (@ sign usage) and the low number of individuals that used a form of direct addressal illustrates that these parent posts were also utilized for open discussion not targeted at a specific individual.

Figure 2 illustrates the complete conversational network across the 10 parent posts. There is a core of activity in the top right portion of the diagram that branches out. The three largest nodes in the graph were coded as supports. There are also numerous isolated dyads and networks of activity that indicate subgroups of individuals communicating within specific parent posts with little connection to the larger network.

Behavior within the Parent Posts

There is a skewed distribution of total comments per individual that participated in the 10 parent posts. The most prolific commenter contributed 100
comments and only 18 participants commented more than 20 times. Although there is a skewed distribution of participation, there is a significant correlation between the prolific posters in the overall conversation and the most prolific individuals in direct addressal behavior. The top commenter had 29 pairs of interactions (non-weighted out degree). In total, 46 of his 100 comments contained some form of outgoing direct addressal (weighted out degree), and he received 38 direct addressals (in degree). This disparity between the non-weighted and weighted out degree illustrates that this individual was engaged in conversations with individuals that contained multiple addressals.

The next 4 top individuals that participated in the overall conversation utilized an outgoing direct addressal in 121 of their total comments (50%) (out degree), but only received 77 total direct addressals in return (in degree). This illustrates that the participation in the conversation by these individuals was heavily directed towards others and that these individuals did not return to the forum to respond to comments. The fact that only 50% of the comments of the top participants included a direct addressal also indicates that the most prolific participants were also participating in general discussion within the forum, as their comments were not directed to another individual. Analysis of the comments of these prolific individuals that did not contain direct addressals indicates that these individuals were supportive of the Tea Party’s viewpoints and when not using a direct addressal they were often voicing general support for other aggregate viewpoints made within the parent posts. This activity indicates that the users utilized Facebook and the context of the parent post as an asynchronous chat room.

The direct addressal behavior within each parent post varied significantly similar to the variation in the number of comments per parent post. A high number of comments within a parent post did not necessarily correlate to a high number of direct addressals. The parent post (#1) that received the lowest percentage of direct addressals (6.25%) was the parent post that received the 5th most comments (n=560). This parent post was the first parent post on the topic of the shooting and occurred just hours after the incident (Figure 4). Analysis of the comments within the parent post illustrates that individuals were more interested in expressing general sentiments of condolences than addressing other individuals within the stream of discourse. The direct addressals that did occur within the first parent post were focused on directly addressing other individuals for clarification of misinformation that had been proliferated in the media.

The parent post that received the most comments in total was the third parent post. As noted earlier, this parent post was a link to an article discussing Tea Party activist’s responses to the shooting. The responses to the parent post voiced support for the victims and also defended the Tea Party as not being responsible for the shooting. Within the stream of discourse there were also many criticisms of certain figures in the media for blaming the Tea Party for the shooting. Many of the conversations that occurred tended to be in response to negative remarks or discussing the coverage and the causes of the shooting.

The third parent post also had the highest number and percentage of direct addressals among the parent posts analyzed. The specific networks of discourse that emerged within this parent post are analyzed in the next section, but it is important to note that almost 44% of the total direct addressals within that parent post utilized the @ sign, the second highest of the 10 parent posts analyzed. The only parent post that had a higher percentage of direct addressals was the last parent post that had almost 56% of the total direct addressals that utilized the @ sign. The number of overall direct addressals within the last parent post analyzed was much lower compared to the earlier parent post, making the high usage of the @ sign in the earlier parent post significant.

Networks of Discourse

Table 3 represents a summary of the network statistics associated with each of the networks of discourse that occurred within each of the parent posts that were analyzed. Network densities are not included in the table as they vary between .01-.06 and are insignificant for differentiating between the networks. As illustrated in Table 3, the structure and characteristics of each network varies significantly.
<table>
<thead>
<tr>
<th>Parent Post</th>
<th>Average Degree</th>
<th>Average Weighted Degree</th>
<th>Diameter</th>
<th>Modularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.4</td>
<td>0</td>
<td>3</td>
<td>0.836</td>
</tr>
<tr>
<td>2</td>
<td>2.346</td>
<td>2.673</td>
<td>4</td>
<td>0.573</td>
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<td>3</td>
<td>3.692</td>
<td>6.513</td>
<td>8</td>
<td>0.407</td>
</tr>
<tr>
<td>4</td>
<td>1.658</td>
<td>2.105</td>
<td>3</td>
<td>0.787</td>
</tr>
<tr>
<td>5</td>
<td>1.96</td>
<td>2.485</td>
<td>6</td>
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<td>6</td>
<td>1.789</td>
<td>2</td>
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</tr>
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<td>1.692</td>
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<td>10</td>
<td>1.963</td>
<td>2.593</td>
<td>5</td>
<td>0.686</td>
</tr>
</tbody>
</table>

Table 3. Overview of Parent Post Networks

The average weighted degree of the networks ranges from 0 in the first network where there were no repeated direct addressals through 6.513 in the third parent post where there was a significant amount of repeated conversation among the participants. The ratio between average weighted degree and average degree may be utilized as a measure of repeated direct addressals, since the weight in the construction of the network represents multiple addressals. As noted in the previous section, the third parent post was the most active in terms of direct addressal behavior. Individuals utilized many repeated direct addressals as identified by the difference between the average degree and average weighted degree.

The two parent post networks that contain the lowest and highest weighted degree (#1 and #3) also have the lowest and highest modularity. Modularity as conceptualized here measures the density of links inside of communities within the network compared to the links between the networks [4]. The closer the modularity is to 1, the higher number of unconnected communities that exist within the network.

The disparity between the modularity in these two networks is indicative of the type of conversation that is occurring. In the first parent post, there is a high level of general discussion that is expressing condolences for the tragedy. Many of the direct addressals within this parent post are for clarification of what has happened as the time immediately following the shooting was one of confusion regarding the true circumstances and who was targeted. In this first parent post (Figure 4) there was a small core of connected individuals, but this was limited to a group of 16 actors. A selection of actors who have supporting and dissenting viewpoints are labeled accordingly. Within this core there were two group dissenters who had made inflammatory remarks and drew some criticism from supporters. In addition to the core group of 16 actors, there were 14 self-contained networks of conversation of 4 or less nodes that represent individuals seeking clarifying information.

The third parent post network (Figure 5) illustrates a greater amount of conversation occurring between interconnected individuals. In this parent post there were 6 isolated conversations and a larger group of individuals engaged in a conversation. Within this parent post there was a significant amount of discussion and debate surrounding the Tea Party’s contributions to inciting the violent rhetoric that many in the media blamed the shooting on. This caused significant amounts of heated discussion among a relative core number of participants.

Figure 4. The First Parent Post Network

Many of these prolific dissenters voiced some inflammatory remarks and were directly addressed in defense of the Tea Party views by supporters. Many of these supporters who initially defended the Tea Party to those making the inflammatory remarks were infrequent participants in the conversation, but they were well connected to other more prolific supporters as a result of other positive Tea Party conversation they had been engaged in. This form of behavior is further illustrated in the second parent post (Figure 6).

The second parent post was a call to pray for the victims and also began to discuss how the shooting would affect the manner in which individuals interacted with elected officials. Within this parent post there was a significant amount of negative comments from individuals blaming the Tea Party for the shooting. These negative comments from dissenters received significant amounts of defensive comments from Tea Party supporters leading to a number of branches represented in the diagram.

Figure 6 illustrates six isolated conversation nodes, but within the core part of the network there are many hubs of activity. These individuals have a very high betweenness and connect certain branches of the
network to the core portion of the conversation. Though these high betweenness individuals have a high betweenness as a result of their high number of connections to a set of isolated individuals, there is a limited amount of interconnectedness among them.

In Figure 6, the actors that sit at the center of the hub and spoke exist at both ends of the ideological spectrum. Those individuals who are supporters tend to be at the center of a series of individuals who they are engaging with to defend the views of the Tea Party. Actors labeled as dissenters tend to be positioned in the middle or at the end of a chain of discourse of which they are connected to Tea Party supporters who are addressing the negative remarks made by the dissenters. The offshoot on the right of the diagram illustrates chain of conversational discourse between a set of Tea Party supporters and dissenters. The Tea Party supporter is directly addressing individuals who are attacking the views of the Tea Party and as a result the dissenter responds back to the Tea Party supporters.

Elimination of Individuals from Discourse

One of the most interesting findings discovered through social network analysis is the identification of the elimination of dissenters in the discourse. In the preceding network diagram (Figure 6), the individuals that were eliminated from the discourse are identified in the upper left part of the diagram. When analyzing each of the networks and the combined activity of the individuals throughout the networks it was discovered that there was a small subset of individuals who had high in-degree and no out-degree.

This structure was initially believed to be the presence of direct addressal by one individual and the absence of direct addressals by the individual with a high in-degree. This would signify that the individual was only interested in speaking to the general forum and not a specific individual. Further analysis of the collected parent posts and comments illustrates that those individuals who had a high in-degree and no out-degree were not present in the collected data as making any comments within the parent posts and comments that were collected. There are no less than 17 individuals who have some measure of in-degree (comments addressed to them) that are not present in the collected data represented throughout the 10 parent posts. This indicates that those individuals who have only in-degree measures were eliminated from the conversation. Although the comments from the eliminated individuals are not present in the collected discourse, the direct addressals to them are and it is through this that their elimination is identified.

Examination of the content of the direct addressals to those individuals who are no longer present in the collected conversations indicates that their comments may have been inflammatory or contrary to the views of the Tea Party or negatively directed at others within the Tea Party. Although many of the individuals that were eliminated from the discourse had less than 5 comments directed towards them, there were 4 participants that had 25 or more messages directed at them (weighted in-degree). One of these individuals had a total weighted in-degree measure of 59, of which 50 of those ties occurred within one parent post. This is demonstrative of an individual who played a significant role in the conversation within one parent post before being eliminated. The nature of the comments that remained with direct addressals towards
this individual indicated that the eliminated individual’s comments were contrary to the views of the Tea Party and its supporters.

The presence of only in-degree measures of those individuals with strongly dissenting views affects the core network structure. Instead of having the presence of conversation reflected in the network, the diagrams that were constructed illustrate a “ganging up” activity on those that are dissenters. This is more clearly reflected in strong direction of discourse aimed at certain individuals. There is no out-degree activity from these individuals and this affects how the network is represented and analyzed retrospectively. As a result of the elimination of comments from the discourse some ties between individuals may not be represented. The elimination of these ties from the discourse has significant implications for individuals studying social networks of discourse without analysis of the content to identify what is really happening.

This last finding of censorship and elimination of certain dissenters from discourse within a political group is the first time that such elimination is noted and reflected through social network measures. Previous research has illustrated the elimination of certain individuals who were dissenters from the overall group they were participating in [23]. This elimination of dissenting individuals was not reflected through social network measures and was only noticed after revisiting the group to collect more data.

6. Discussion

The utilization of social networking sites for political activity has increased. The number of such forums and the number of posts within these forums are both on the rise. These spaces are controlled by the administrators of the group and also by the owners of the technology. This ownership and control has many implications for society in how the discourse is conducted and how group administrators are able to facilitate effective discourse. As these technologies mature, many of the initial barriers to discourse, like poor technological accommodation of direct addressal behavior can be overcome. New technologies and user adaptation of current technology are likely to work together to make online political discourse more fluid. One such example of a technological affordance that has been successful in social media is the Twitter hashtag. In order to effectively overcome these adoption barriers it is necessary to understand the behavior within these groups and how the technologically prescribed interaction mechanisms are utilized and affect user behavior along with the control that the administrators and owners of the technology have especially as more focus is placed on analyzing political networks [21].

Although we focus on Facebook, our findings have implications for many online spaces where political discourse occurs. The fact that only 38% of individuals in this group utilize the technologically afforded conversation mechanism means that substantial design and technology improvements to support facilitation and encouragement of conversation within larger groups are possible. The lack of adoption of automated mechanisms for direct addressal implies that many individuals may not be able to respond to messages directed to them because they are unaware that such messages exist. Informal direct addressal messages often seem lost in the noise of a large discussion space and this has both design and societal implications.

The control that administrators of such groups have over discourse is illustrated with the previous findings. The agenda setting power of the administrators influences the network behavior of individuals and the selection of those who are able to persist in the discourse. The administrators post articles that they believe will draw in favorable discourse and although favorable discourse is often the ideal it does not always happen. With a controversial topic, dissenting views are expressed. This creates intense discussion among many individuals within the context of the parent post. Those that are judged to be significant dissenters are eliminated from the discourse. Future research should consider the extent to which controversy is a vehicle for attracting both dissent and advocacy; and whether or not these groups sometimes deliberately follow the advertising industry axiom “there’s no such thing as bad publicity” in their use of political discourse spaces.

This elimination is not noted in the discourse and is only found through social network analysis coupled with qualitative analysis of the data. Traceless removal distorts the discourse occurs within the group. There is no notification of post deletion, and users do not expect it. This censorship of individuals eliminates dissent as a component of discourse, leading to a virtual echo chamber within the group and ethic of self-enforcing advocacy among participants [36; 37]. The traditional communications notion of “message control” is blurred with censorship in this context, leading to important ethical and policy discussions in the future.

Although censorship has been practiced in media, the advent of social media has brought upon an expectation of a complete record of events. The elimination of dissenting comments is to be somewhat expected in some forums that want to maintain a level of decency, but elimination based solely on viewpoint undermines the experience of deliberative discourse on the Internet and jeopardizes its possibly transformative place in citizen engagement efforts [9]. When the administrators of the group attempt to eliminate dissent
through traceless removal it appears as though diversity in opinion is not welcome and creates a closed dialogue on a forum where the system interactions give the participant no reason to suspect censorship. Social media and discussion forum designers may be able to institute a notification to the group that certain discourse has been eliminated for a specific reason although it is unknown if the technology would be adopted by administrators if such control was ceded.

Although outside the scope of this initial effort, further research is needed to understand if comments that contained a formal direct addressal with the @ received more responses and were eliminated less than those that utilized more informal mechanisms. Making the path of direct addressal and the conversations they imply more easily identifiable and understandable in social media technologies that support political discourse may help solve the problem of invisible censorship. It’s easy to delete posts without being noticed in a large, mostly group conversation. When users are able to follow particular threads, deletions become apparent, and the conversational integrity of the space is more clearly understood by all.

The limited usage of the @ sign is a design gap that must be addressed if social networks intend to be utilized for discourse. Services such as Twitter encourage direct addressals (mentions) through the ability to include the @ in a message, but in social networks such as Facebook this option is not as prevalent. As newer social networks are created, it is important that past user experiences are understood to build on previous technological affordances. Further design and visualization developments may help to increase the automated mechanisms of addressing others in discourse [30].

7. Conclusion

The analysis of a subset of posts within a politically oriented Facebook group allows for the analysis of conversation among individuals. This conversation varies significantly in structure, content and the nature of technological mechanisms to address others. This study helps to develop an understanding of how individuals participate in conversational discourse within social networking sites and helps to inform technological design to further facilitate such activity.

Established research and analysis methods can be applied to these new spaces to establish the ground truth in the data that is collected. Social network analysis techniques allow for the discovery of interesting behavior within a network, but must be coupled with qualitative analysis to develop a complete understanding. Traceless removal of individuals is one such example. The undocumented removal of an individual from discourse may significantly alter what the electronic trace data represents and may mislead an information consumer, discourse participant or researcher. These findings have design and implementation implications for initiatives that attempt to encourage deliberative discourse.

10. References