

Online Ideology: A Comparison of Website Communication and Media Use

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This study examined and compared the websites of ideological groups from a communications and media use perspective. Thirty-six websites with message boards categorized as either violent ideological, nonviolent ideological, or nonviolent nonideological were content coded for several distinguishing characteristics. The results indicated that group type was predicted by the type of information presented, the difficulty of becoming a member, and the amount of freedom members had on discussion boards. These findings suggest that characteristics of violent ideological group websites can be used to distinguish them from websites of both nonviolent ideological and nonideological groups. This study also provides a demonstration of a research methodology that can be used to naturally observe ideological groups via an online setting.

Key words: online communication, technology, internet groups, ideological groups, message board communication

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In light of the attacks of September 11, 2001, violent ideological groups have commanded the interest and attention of researchers across a variety of disciplines. This research has attempted to answer a wide variety of questions about how these groups operate, how people become involved in such groups, and how people commit horrendous acts of violence in the name of these groups. Researchers have taken numerous approaches to studying these groups. Topics of study have included but are not limited to psychological processes present in these groups, group member interactions, religious or political viewpoints, and how communication takes place among group members (e.g., Author, in press; Gerstenfeld, Grant, & Chiang, 2003; Lee & Leets, 2002; Moghaddam, 2005; Author, 2008c). These approaches provide unique information about how violent ideological groups develop, operate, and sustain themselves over time. There is growing awareness and concern over how violent ideological groups exploit the internet to achieve group goals. Websites are being developed by these groups to widely disseminate violent ideologies, recruit and indoctrinate new members, and solicit financial support (Author, 2008b). Given this, the purposes of the present study are to: (1) examine and compare the websites of both violent and nonviolent ideological groups from a communication and media use perspective, and (2) provide a demonstration of a research methodology that can be used to naturally observe ideological groups who have an online presence.

The Nature of Ideological Groups

To examine ideological groups via an online setting, it is useful to first understand the nature of ideological groups. Ideological groups tend to have clear, strongly held values that provide a mental model, or framework, for understanding and interpreting their environment (Author, 2008c). These groups generally consist of individuals with shared viewpoints, interests, and goals (Friedland, 2001; Van Dijk, 2006), and this mental model of the world around them provides an interpretive structure which can be used to construe events and actors as either positive or negative depending on the nature of this ideological framework. Ideological groups come in many different shapes and sizes including political (e.g., Republican and Democratic parties), civic (e.g., American Civil Liberties Union [ACLU] and Greenpeace) and religious (e.g., the Catholic Church) organizations. Thus, this definition is intentionally broad in order to encompass a wide range of viewpoints and different types of ideological groups. Again, these groups operate on the basis of their group mental model which

they use to interpret information and events. This mental model serves to motivate group actions in order to fulfill their collective goals. This underlying ideological framework is what distinguishes these groups from nonideological groups (Van Dijk, 2006) which might include more applied or pragmatic organizations like the Special Olympics organization. Nonideological groups typically share general beliefs, knowledge, or norms, but do not share a persistent, underlying ideological framework.

While this definition suggests a number of characteristics of ideological groups in general, it does not distinguish groups that have violent tendencies from those groups that do not. Violent ideological groups are defined as groups of individuals connected by a set of ideological values where these values support, encourage, or condone violence in service of sustaining and furthering the ideology and its reach. These groups use an extremist ideology to justify their aggressive and violent behavior (Author, 2008c). Alternatively, many nonviolent ideological groups espouse nonviolence as part of the ideology, either explicitly or implicitly.

Although some research has addressed the communication processes of ideological groups (e.g., Author, in press; Ballard, Hornick, & McKenzie, 2002; Damphousse & Smith, 2002; Gerstenfeld et al., 2003; Lee & Leets, 2002; Levin, 2002; Schafer, 2002), much of the research, with some exceptions, has been qualitative or ethnographic in nature. Additionally, much of the research on ideological communication focuses *solely* on violent groups, without the benefit of comparison to nonviolent ideological groups (e.g., ACLU). This kind of direct comparison allows us to more effectively discern similarities and differences across these types of groups. Specifically, this study identifies distinguishing characteristics of violent versus nonviolent ideological groups' websites. This was done by assessing differences between these websites in terms of how various kinds of media on the websites are used, what information is provided to group members, membership characteristics, and website functionality. The rationale and impetus behind this study comes from the need to understand all that we can about violent ideological groups and how they communicate via the internet. A deeper understanding of ideological group communication could potentially help identify violent groups or groups at risk for possible violent behaviors. The identification of the characteristics associated with violent groups' websites could also potentially aid in the development of prosocial ideological interventions that are attractive to potential group members.

The Internet and Ideological Groups

For ideological groups, particularly for violent ones, the connectedness and social networking provided by the internet are relatively new resources. In the past, these groups have sought to take advantage of the latest in communication technology (Levin, 2002), but never has it been easier to spread their ideology and recruit new members to their cause. The internet provides an outlet for these groups to spread messages that are not typically socially acceptable or would not be welcomed on mainstream media outlets. Consequently, the internet has quickly become the preferred method of communication for these groups (Author, 2008b; Stanton, 2002). Many of these groups have developed websites in order to increase the reach of their propaganda and simultaneously decrease their profile with law enforcement (Blazak, 2001). Violent ideological groups are now able to attract potential members who would have previously been unable or unwilling to attend functions or face-to-face group meetings but who nonetheless express an interest in the group (Lee & Leets, 2002).

Often times, however, violent tendencies are not readily apparent from a website due to the public nature of the internet and the possible legal repercussions for the group. Thus, it would be helpful to be able to identify some general characteristics of websites that can be used to reliably distinguish violent from nonviolent ideological groups other than explicit statements by the group condoning violence.

Website Characteristics

There are a variety of useful website characteristics that could potentially be examined. The goal of this study is to identify *some* potential characteristics that could accurately predict group membership. It should be noted, however, that the variables identified and used in this study are by no means the only variables that could be of importance in the study of ideological groups' websites. Nonetheless, an attempt was made to select variables based on three criteria: 1) a thorough examination of the literature and previously examined variables that could be expanded, 2) consistent presence on the websites of interest, and 3) feasibility of rating the variables given the information provided on the websites being examined. Key articles that *specifically* examined ideological/hate groups and their online communications were consulted (e.g., Author, 2008a; Author, in press; Gerstenfeld et al., 2003; Schafer, 2002). These articles were most closely examined because the purpose and methodology employed in these studies were consistent with the current study, and they provided the most information in regard to potentially important website characteristics. Through the review of these articles, five broad categories of website characteristics were identified: *information variety*, *types of media used*, *member characteristics*, *member control*, and *website functionality*. A brief description of each category follows.

Information Variety. Schafer (2002) and Gerstenfeld et al. (2003) analyzed the links provided on the websites of extremist groups. They independently found that extremist groups would generally provide a variety of links to other similar groups creating a small network of ideologically tied groups. This category can also be extended to include the measurement of internally referenced links, external links in general, and external links to affiliated groups. Iyengar and Hahn (2009) conducted a study examining the media (e.g., television news sources) to which people of varying ideologies are typically drawn. Their results indicated that people with strong ideological viewpoints generally prefer media that are similar in perspective to their own beliefs. Thus, it may be important to consider the extent to which progroup (consistent) vs. neutral or antigroup (inconsistent) information is provided on group websites. Finally, we also extended this category to include the topic variety of the information included on the website and communication forums. Topic variety may be an important indicator of the extent to which groups dictate what can be discussed or communicated on their websites.

Media Types and Uses. In 2008, Author proposed that violent ideological groups prefer the use of new media compared to traditional media. It was argued that extreme ideological groups will often be barred from traditional media channels, given that their viewpoints are often antisocial and violent. Thus, we thought it pertinent to measure the extent to which these ideological groups use traditional and new media channels. Additionally, Author (2008a) proposed that both violent and nonviolent ideological groups would use media to disseminate information. However, they argued that violent ideological groups may use the internet for a variety of social purposes to a greater extent. Social networks provide a way to recruit and indoctrinate new members. Unlike violent groups, nonviolent groups typically prefer to reach the population at large rather than a handful of members and are not as concerned with retaining members. Thus, there is less of a need to provide social outlets and to keep members actively involved. Therefore, the extent to which information is used for informational versus social purposes could be another potentially important indicator.

Both Schafer (2002) and Gerstenfeld et al. (2003) examined the multimedia content and modes of communication (i.e., number of ways to interact) of extremist websites. Our goal was to build on this work and break these characteristics down into more descriptive elements. The number of ways to interact in general also was examined, and these methods of interaction were categorized into synchronous (e.g., chat, instant messaging) versus asynchronous formats (e.g., message boards, list serves). Author (2008a) suggested that violent groups would prefer more synchronous methods of interaction because it would allow members to build more genuine relationships which would further their community building goals. Furthermore, Schafer (2002) showed that symbols and graphics play

an important role on extremist websites, and thus, emotionally evocative graphics could also be an important predictor of group type.

Membership Characteristics. Several membership characteristics may also be potentially important discriminators across violent and nonviolent groups. Author (2008a) suggested that violent group members tend to remain with the group for longer periods of time, while members of nonviolent ideological groups may be more transient in nature. Thus, it may be important to examine the number of memberships to the website, the tenure of group members, member activity levels, and website prominence.

Member Control. Author (2008a) argued that violent ideological groups exhibit more tightness (MacClaren & Catteral, 2002; Post, Ruby, & Shaw, 2002, Pynchon & Borum, 1999) which involves retaining control over group members in terms of the accessibility of the website features and the content that members were allowed to view and/or manipulate. This will allow violent groups to dictate what information is disseminated to group members in order to strictly control the ideology of the group. Four aspects of control may be relevant to consider: tightness of control (i.e., how strict are the regulations regarding member activity), restrictive access (i.e., how difficult it is to access website content), customizability (i.e., how much identity members can display via the website), and controllability (i.e., how much autonomy members are given in terms of deciding website content).

Website Functionality. Schafer (2002) was able to examine extremist website use of audio and video and found that these groups tend to use more audio rather than video sources of information. The results prompted consideration of a number of other functional features of websites that have not yet been explored with respect to ideologically extreme groups. Several website functions may be relevant in contrasting violent and nonviolent groups including technological sophistication (e.g., embedded search engines), technical functionality (e.g., all links work), ease of use, visualization capability (e.g., video feed), audio capability (e.g., radio broadcast), and visual/aesthetic quality.

By examining a variety of website characteristics and membership features, this study seeks to expand previous research regarding ideological groups by investigating the distinguishing features of ideological websites. While some research suggest directional hypotheses about how each of these individual characteristics would characterize violent and nonviolent ideological groups, this study is still considered exploratory given the number of new and more specific variables being examined. Thus, two broadly writ research questions are posed:

- 1 *What are the similarities and differences between violent ideological, nonviolent ideological, and nonviolent nonideological groups in regards to these five categories?*
- 2 *What are the characteristics of online groups' websites that predict group membership (e.g., violent ideological vs. nonviolent ideological vs. nonviolent nonideological)?*

Method

To explore these research questions, websites containing message board forums that fell into three distinct groups (i.e., violent ideological, nonviolent ideological, and nonviolent nonideological) were identified. It should be noted that an insufficient number of "violent nonideological" websites could be located. This is not surprising given that groups falling into this category, such as street gangs and the Mafia, generally do not have an interest in advertising their illegal activities. The content of the identified websites and message boards were coded for content relevant to the website characteristics previously described. The numerical ratings derived from this coding procedure were then analyzed. A description of the procedures for sampling the websites, scale development and coder training are provided.

Sampling

The sample used in this study consisted of 36 websites that were affiliated with a particular group. Websites were considered for analysis if: 1) the website was affiliated with a group that held some of its meetings in person, 2) the website contained a message board, and 3) the message board was active at the time of sampling (i.e., there are people actually posting on the message board). A message board was considered “active” when 1) it contained at least 10 separate threads and 2) at least five of the threads had more than 10 replies to the initial post. This ensured that the websites selected had the requisite information for analysis. Using this set of criteria, relevant websites were identified for inclusion in the study. Websites were then classified into one of three group type categories: violent ideological, nonviolent ideological, and nonviolent nonideological.

Website Identification. Websites were identified based on keyword searches entered into the *Google.com* search engine. Keyword search terms were identified in a number of ways. First, the names of known ideological and nonideological groups were used to identify the websites of particular groups (e.g., the “Ku Klux Klan,” the “American Civil Liberties Union”). If no homepage could be identified from this search, the search terms were combined with other terms that could return acceptable websites (e.g., “KKK + message board,” “KKK + forum”). A second method for identifying search terms was to type in general search terms that are central to ideological issues (e.g., “pro-life”). These search terms could also be combined with other terms to return acceptable websites (e.g., “pro-life + forum”). Finally, websites were identified by following links provided on websites previously located in keyword searches. These sites often have separate pages dedicated to “links” that list sites and URLs of like-minded groups or advertisements for pages of the same type.

Website Selection. Selection of the websites was based on the quality of the information on the website and the message board. A total of 36 websites that met the general requirements described above were selected. An attempt was made to locate websites that covered religious, civic, and political domains. However, this was not always feasible given that, for example, there are few violent charities and even fewer nonideological religious groups. Of the websites that were selected, the violent ideological websites were mostly white supremacist, hate groups. The nonviolent ideological groups were mostly political, special interest, or religiously oriented groups. Finally, the nonviolent nonideological websites were generally interest groups, professional/specialist groups, or political lobbyists.

Website Classification. The classification of websites is consistent with the classification for groups proposed by Author (2008c). Websites were classified as ideological if 1) the website articulates a mental model about the goals the group seeks to obtain, 2) the mental model describes actions to be taken to achieve these goals, 3) the mental model is used to interpret relevant events, and 4) the website seeks to recruit others. A website was considered nonideological if it did not articulate a mental model or goals for the group and took a pragmatic outlook on recruitment. Sources for this information were mainly located on the website itself. Many websites have an “About Us,” “Mission Statement,” or “Statement of Purpose” page, which could be used to identify the above information. If the website was affiliated with a particular ideological group, outside sources of information about the group were also considered (e.g., Southern Poverty Law Center Intelligence Report, 2000; public information available about groups).

Websites were classified as violent if they met two or more of the following criteria: 1) the website itself condones acts of violence, 2) the website is affiliated with a group known to condone violence, 3) website/group members have been linked to two or more acts of violence, and 4) the website has been classified as such by a reputable third party (e.g., Southern Poverty Law Center). Sources for this information were similar to the sources used for the ideological/nonideological distinction. See Table 1 for a final list of the websites examined.

Table 1 List of online communities by category

| | |
|---|--|
| <i>Violent Ideological Groups</i> | |
| <ul style="list-style-type: none">● Animal Liberation Front (ALF)● Army of God (AOG)● Aryan Nations● Creativity Movement● Ezzdedden Al-Qassam Brigade (Hamas)● Keystone United● Ku Klux Klan (KKK) | <ul style="list-style-type: none">● League of the South● National Socialist Movement● People for the Ethical Treatment of Animals (PETA)● Volksfront● White Revolution |
| <i>Nonviolent Ideological Groups</i> | |
| <ul style="list-style-type: none">● American Association of Retired Persons (AARP)● American Society for the Prevention of Cruelty to Animals (ASPCA)● Amnesty International● Anonymous-Why we protest● Atheists of Utah● Catholic Online (COL)● Center for Bioethical Reform (CBR) | <ul style="list-style-type: none">● Free Believers Network● Friends of the Earth● Mothers Against Drunk Driving (MADD)● National Association for the Advancement of Colored People (NAACP)● The Nationalist Movement |
| <i>Nonviolent Non-ideological Groups</i> | |
| <ul style="list-style-type: none">● Asian American Film● Atomic Age Alliance● Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD)● Dallas Bicyclists Club● Humanity Against the Victimization of Children (HAVOC) | <ul style="list-style-type: none">● Indiana Ghost Trackers● Jenny Craig● Miracles in Progress● Mustang Club of Houston● Pasadena Sportfishing Group● Seattle Coffee Club● Special Olympics Wisconsin |

Scale Development

Five categories of variables were identified for the present study. These variables were *Information Variety/Access*, *Media Types/Use*, *Member Characteristics*, *Member Control*, and *Website Functionality*. After the list of variables for each of the previous dimensions had been specified, a set of rating scales were developed for content analyzing the website. First, behavioral definitions were generated for each variable by a panel of three psychologists, all doctoral students familiar with the groups online communication literature. Second, these markers were converted into 5-point rating scales. Third, the rating scale values were defined with behavioral summaries (i.e., descriptions from a characteristic website of a particular rating) and anchors (i.e., behavioral examples of a particular rating). Examples drawn from websites similar to the ones sampled for the present study were used to develop the behavioral summaries and anchors. See Table 2 for a complete list of the variables and definitions.

Content Coding Procedures

Individual Judge Ratings. Prior to evaluating the qualitative material using these rating scales, nine judges, all doctoral students, received 25 hours of training using a frame-of-reference method commonly used to train managers to apply performance appraisal ratings (Bernadin & Buckley, 1981). The training was

Table 2 Definition of Study Variables

| Variable | Definition |
|-----------------------------------|---|
| Information Variety/Access | |
| External Links | Number of links on the website to external information/content |
| Internal Links | Number of links on the website to internal information/content |
| Affiliates | Number of affiliates or associated groups/companies/etc. approved by the website |
| Pro-Group Information | Extent to which the website provides information consistent with the group |
| Neutral/Anti-Group Information | Extent to which the group provides information which opposes the group or is neutral to the group |
| Topic Variety | Degree to which there are a variety of topics/issues being discussed on website discussion forums |
| Media Types/Use | |
| Synchronous | Extent to which the website uses more synchronous forms of media (e.g., chat rooms, message boards) |
| Asynchronous | Extent to which the website uses more asynchronous forms of media (e.g., access to news, current events) |
| Intended Use: Informational | Extent to which the website emphasizes information exchange in their online communities |
| Intended Use: Social | Extent to which the website emphasizes social interaction in their online communities |
| New Media Incorporated | Extent that website incorporates or contains links/references to new media (e.g., online newspapers, online videos) |
| Traditional Media Incorporated | Extent that website incorporates or references traditional media (e.g., newspapers, TV) |
| Emotionally Evocative Graphics | Number of emotionally evocative graphics (e.g., symbols, photos) on website |
| Methods of Interaction | Degree to which the website provides a variety of ways in which members can interact and/or communicate |
| Member Characteristics | |
| Tenure | Typical length of time that website members maintain an active membership |
| Activity | Frequency and amount of members' active participation on the website forums/message boards |
| Number of Members | Number of members registered with the website |
| Website Prominence | Google.com ranking of website URL |
| Member Control | |
| Customizability | Degree to which members can personally customize, modify, or create website characteristics and features |
| Controllability | Degree to which the website administrators grant control of content, processes, etc. to members or website users |
| Tightness of Control | Strictness in regulating and monitoring website forums by administrators |
| Restrictive Access | Degree of restrictive access to discussion |
| Website Functionality | |
| Sophistication | Extent to which website contains many different options and capabilities (e.g., internal search engine, RSS feed) |
| Technical Functionality | Extent to which website functions well, links work, pages load correctly, etc. |
| Ease of Use | Extent to which the website is user-friendly |
| Visualization Capability | Amount of visualization options such as streaming or downloadable video, picture, or other visual options |
| Audio Capability | Amount of audio options such as streaming or downloadable audio (podcasts) |
| Visual Quality | Overall quality of visual aspects of site, aesthetic appeal, (including graphics) |

conducted in three stages. First, the judges were introduced to basic concepts underlying the ratings. Second, the judges then viewed sample websites and forums that were used for training purposes. After reviewing the websites, each judge individually rated the sample sites. After completing the ratings, disagreements were discussed as a group until consensus was reached.

Upon completion of rater training, three sets of three doctoral students served as judges and rated each website on the variables discussed previously. All three judges accessed and viewed the group websites and forums simultaneously. After viewing the website, each judge made an individual rating for the various metrics. Application of these procedures resulted in adequate interrater agreement coefficients. Using the procedures suggested by Shrout & Fleiss (1979), the average interrater reliability obtained for these scales was acceptable with an average ICC2 of .86 ranging from .66 to .93 (See Table 3).

Consensus Group Ratings. As discussed previously by Gernstenfeld et al. (2003), content coding of websites can be difficult as websites are often times very large and complex and are likely to change frequently. As such, it is likely that a single judge may miss information relevant to the variables for any given website. To help remedy this methodological problem consensus groups were formed using the same three sets of three doctoral students to rate the variables discussed above. These groups were created through random assignment of the nine individual judges.

For the consensus group variables, judges completed the same frame-of-reference training that was discussed previously. Two consensus groups viewed and rated each website on a number of variables. Consensus groups met in isolation and viewed each website. The variables were rated by each judge after viewing the website. Any discrepancies in ratings were discussed until a consensus agreement was reached. Application of these procedures resulted in adequate interrater agreement. Using the procedures suggested by James, Demaree, and Wolf (1984), the interrater agreement statistic r_{wg} was computed for these scales with an average r_{wg} of .69 ranging from .53 to .95 (See Table 3).

Results

Table 3 presents means and standard deviations for all variables by group. To answer the first research question, the similarities and differences between violent ideological, nonviolent ideological, and nonviolent nonideological groups was assessed. First, a MANOVA was conducted on the 28 variables to assess differences in the variables across groups. The MANOVA was found to be significant ($F(2, 33) = 2.50, p = .02$) based on the Wilk's criterion. Separate ANOVA's on individual variables were then performed, indicating that *progroup information* ($F(2, 33) = 6.14, p < .01$), *neutral/antigroup information* ($F(2, 33) = 3.18, p = .05$), *intended use: informational* ($F(2, 33) = 3.38, p = .05$), *new media incorporated* ($F(2, 33) = 8.88, p < .01$), *traditional media incorporated* ($F(2, 33) = 4.65, p = .02$), *emotionally evocative graphics* ($F(2, 33) = 6.40, p < .01$), *tightness of control* ($F(2, 33) = 6.19, p < .01$), *sophistication* ($F(2, 33) = 3.39, p = .05$), and *visualization capability* ($F(2, 33) = 4.10, p = .03$) were significant. However, it must be noted that the *neutral/antigroup information* metric had a moderate reliability and thus, caution must be used in the interpretation of this variable.

Post hoc tests were then conducted on the variables identified as significantly different across groups in the ANOVA's. A Tukey multiple comparison procedure (MCP) was used to determine which specific groups differed on each variable. For *progroup information*, significant differences were found, such that violent ideological groups ($M = 4.96, SD = .14$) were higher on this variable than nonviolent nonideological groups ($M = 4.37, SD = .57$), $p < .01$. The post hoc comparison for *neutral/anti-group information* revealed that nonviolent ideological groups ($M = 2.17, SD = 1.01$) were higher than violent ideological groups ($M = 1.46, SD = .50$), $p = .04$ on this variable. *Intended use: informational* also showed differences between these two groups, as nonviolent ideological groups ($M = 4.31, SD = .46$) were rated

Table 3 Means and Standard Deviations

| | Violent Ideological | | Nonviolent Ideological | | Nonviolent Nonideological | |
|--------------------------------------|---------------------|-----------|------------------------|-----------|---------------------------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Information Variety/ Access | | | | | | |
| External Links (.95) | 1.46 | 1.16 | 1.25 | 0.45 | 1.41 | 0.82 |
| Internal Links (.75) | 3.13 | 1.30 | 2.75 | 1.08 | 2.95 | 0.91 |
| Affiliates (.75) | 1.46 | 0.78 | 1.21 | 0.58 | 1.37 | 0.67 |
| Progroup Information (.64) | 4.96 _a | 0.14 | 4.70 _{ab} | 0.40 | 4.37 _b | 0.57 |
| Neutral/ Antigroup Information (.62) | 1.46 _a | 0.50 | 2.17 _b | 1.01 | 1.79 _{ab} | 0.39 |
| Topic Variety (.59) | 2.92 | 1.36 | 2.92 | 1.59 | 1.95 | 0.49 |
| Media Types/ Use | | | | | | |
| Synchronous (.53) | 1.71 | 0.86 | 1.96 | 1.10 | 2.29 | 1.09 |
| Asynchronous (.62) | 3.67 | 0.75 | 3.83 | 0.69 | 3.50 | 0.56 |
| Intended Use: Informational (.77) | 3.61 _a | 0.80 | 4.31 _b | 0.46 | 3.72 _{ab} | 0.83 |
| Intended Use: Social (.88) | 2.69 | 0.91 | 2.92 | 0.74 | 3.22 | 0.84 |
| New Media Incorporated (.84) | 2.97 _b | 0.94 | 3.39 _b | 0.49 | 2.25 _a | 0.53 |
| Traditional Media Incorporated (.87) | 2.69 _b | 0.91 | 2.72 _b | 0.60 | 1.97 _a | 0.50 |
| Emotionally Evocative Graphics (.87) | 2.86 _b | 1.27 | 2.11 _{ab} | 0.89 | 1.47 _a | 0.55 |
| Methods of Interaction (.78) | 2.61 | 0.67 | 2.64 | 0.58 | 2.33 | 0.76 |
| Member Characteristics | | | | | | |
| Tenure (.86) | 4.63 | 2.49 | 4.33 | 2.28 | 4.83 | 2.14 |
| Activity (.64) | 3.25 | 0.99 | 3.08 | 1.41 | 2.83 | 1.45 |
| Number of Members | 22320 | 54152 | 9966 | 13604 | 14667 | 38995 |
| Website Prominence | 4.08 | 1.51 | 5.42 | 2.31 | 4.08 | 1.44 |
| Member Control | | | | | | |
| Customizability (.88) | 2.42 | 0.79 | 3.11 | 1.08 | 2.61 | 0.95 |
| Controllability (.88) | 2.56 | 0.86 | 2.92 | 1.00 | 2.86 | 0.92 |
| Tightness of Control (.89) | 3.03 _b | 0.95 | 2.56 _{ab} | 1.00 | 1.80 _a | 0.56 |
| Restrictions (.93) | 3.22 | 1.20 | 2.72 | 1.01 | 2.30 | 1.17 |
| Website Functionality | | | | | | |
| Sophistication (.91) | 2.64 _a | 0.93 | 3.50 _b | 0.76 | 2.83 _{ab} | 0.86 |
| Technical Functionality (.79) | 4.06 | 0.76 | 4.47 | 0.48 | 4.25 | 0.87 |
| Ease of Use (.66) | 3.53 | 0.66 | 3.69 | 0.56 | 3.61 | 0.65 |
| Visualization Capability (.91) | 2.50 _{ab} | 0.95 | 3.39 _b | 0.74 | 2.30 _a | 1.21 |
| Audio Capability (.92) | 1.97 | 0.97 | 2.11 | 0.78 | 1.61 | 0.73 |
| Visual Quality (.90) | 2.41 | 0.82 | 3.22 | 0.70 | 2.55 | 1.02 |

Note: Means that do not share a subscript (a,b) differ significantly at $p < .05$ from post hoc Tukey comparisons. Interrater reliability values are shown in parentheses. Values are bolded for ICC's (used for individual ratings) and italicized for RWG's (used for consensus ratings).

Table 4 Classification Results

| Group | Classification Accuracy | Centroids |
|--------------------------------|-------------------------------------|------------------|
| Violent Ideological | 91.7% | 1.355 |
| Nonviolent Ideological | 83.3% | .295 |
| Nonviolent Nonideological | 100.0% | -1.650 |
| Predictor | Standardized Canonical Coefficients | Structure Matrix |
| Progroup Information | .35 | .47* |
| New Media Incorporated | .20 | .42 |
| Traditional Media Incorporated | .24 | .39* |
| Emotionally Evocative Graphics | .67 | .47* |
| Tightness of Control | .61 | .47* |
| Restrictiveness | .21 | .26* |

*Largest absolute correlation between each variable and any discriminant function.

much higher than violent ideological groups ($M = 3.61$, $SD = .80$), $p = .05$. For the variable *new media incorporated*, post hoc comparisons showed that nonviolent nonideological groups ($M = 2.25$, $SD = .53$) were significantly lower than both violent ideological ($M = 2.97$, $SD = .94$), $p = .03$ and nonviolent ideological groups ($M = 3.39$, $SD = .49$), $p < .01$. The same pattern was found for *traditional media incorporated*. With this variable, again, nonviolent nonideological groups ($M = 1.97$, $SD = .50$) were rated lower than both violent ideological ($M = 2.69$, $SD = .91$), $p = .03$ and nonviolent ideological groups ($M = 2.72$, $SD = .60$), $p = .04$. The comparisons for *emotionally evocative graphics* indicated that differences exist between violent ideological groups and nonviolent non-ideological groups, such that violent ideological groups ($M = 2.86$, $SD = 1.27$) were rated higher than nonviolent nonideological groups ($M = 1.47$, $SD = .55$), $p < .01$ on this variable. Comparisons for *tightness of control* revealed a similar finding in that violent ideological groups ($M = 3.03$, $SD = .94$) were again higher than nonviolent nonideological groups ($M = 1.80$, $SD = .56$), $p < .01$. There were interesting findings for *sophistication* in that the nonviolent ideological groups ($M = 3.50$, $SD = .76$) were higher than violent ideological ($M = 2.64$, $SD = .93$), $p = .05$. Lastly, comparisons on *visualization capability* revealed that nonviolent ideological groups ($M = 3.39$, $SD = .74$) received higher ratings than nonviolent nonideological groups ($M = 2.30$, $SD = 1.21$), $p = .03$.

To answer the second research question, analyses were conducted to examine what website characteristics predict group membership. To do this, a discriminant function analysis (DFA) was conducted to determine which variables differentially predict membership in the three groups (violent ideological, nonviolent ideological, and nonviolent nonideological). Groups of variables were first entered simultaneously by category. For each category (Information Variety/Access, Media Types/Use, Member Characteristics: Quality/Frequency/Popularity, Member Control, and Website Functionality), a separate DFA was conducted using only the variables in that category. Based on the findings of the DFAs for each of the five variable categories, the predictors with the highest loadings in each category were identified, and all other variables were dropped for the final analysis. The high-loading variables were combined and entered into the final DFA. Table 4 presents the results of the final DFA.

In this analysis, the Wilk's lambda for function 1 was significant ($\lambda = .284$, $p < .01$), however it was not significant for function 2, therefore only function 1 results will be interpreted. For each group, violent ideological ($M = 1.36$), ideological nonviolent ($M = .30$), and nonviolent nonideological ($M = -1.65$), the classification rates are 91.7%, 83.3%, and 100%, respectively. These results indicate

that *progroup information* ($r = .35$), *new media incorporated* ($r = .20$), *traditional media incorporated* ($r = .24$), *emotionally evocative graphics* ($r = .67$), *tightness of control* ($r = .61$), and *accessibility* ($r = .22$) are strong indicators of group type. Of these, the variables with particularly high loadings were *progroup information*, *emotionally evocative graphics*, and *tightness of control*. These findings are very similar to the first analysis in that the discriminating variables emerging here were all found to have significant differences in group means. Other variables that did not predict group membership in the DFA but were found to significantly differ across groups were *neutral/antigroup information*, *intended use: informational*, *sophistication*, and *visualization capability*.

Discussion

Given the remarkably influential nature of ideological groups on individuals personally as well as on society as a whole, increasing our awareness of how these groups use online websites to promote their ideals and further their causes is extremely important. As such, the focus of this study was to expand our knowledge of ideological groups generally and, more specifically, to examine how they use the internet as a means of conveying their beliefs and values. The results of this study have provided at least some evidence suggesting that with respect to ideological group websites, violent ideological sites have several characteristics distinguishing them from websites of both nonviolent ideological and nonideological groups.

Our first finding was that the promotion of *progroup information* predicted violent ideological website status, and this characteristic was significantly higher for violent ideological group websites than nonviolent nonideological ones. Certainly, this finding is not surprising given the nature of ideological group members. Since members develop a sense of identity from their ideology, it provides a framework from which they base their goals and values, and formulate a worldview which they perceive to be universal and true (Author, 2008). Although no differences were found in the post hoc procedures between violent and nonviolent ideological websites regarding *progroup information*, it is interesting that only violent but not nonviolent ideological group websites were predicted by an overabundance of information in line with the group. One potential explanation for this finding stems from the strong sense of moral superiority typically held by violent ideological groups (Moghaddam, 2005). This perception of righteousness may lead violent ideological groups more than nonviolent ideological groups to disseminate as much information as possible promoting their superior way of thinking. In addition, because violent ideological groups often require members to essentially discard their personal identities for that of the group's (Post et al., 2002), inundating a website user with *progroup* messages may serve to foster the process of fully adopting a group identity.

Related to the above observation, we also found that a group's usage of multiple media types on its website predicted its classification as a violent ideological group. Specifically, more varied methods of information sharing such as videos, flyers, newsletters, books, and music clips were found on violent ideological group sites than other types of group websites. In order to ensure the consistency of the information and values being conveyed, however, the group itself or another group directly affiliated with the one in question was often the original source of the media. For instance, Volksfront International's webpage features news, video clips, and music but each piece of media is contained within the group's own internet domain. Nonetheless, using a variety of mediums to spread their ideological beliefs, violent ideological groups may be able to create a sense of a larger community of shared values than actually exists. By repeatedly exposing individuals to the same principles and ideals in a multitude of ways, violent ideological groups may be able to generate the impression amongst their followers in addition to potential members that their ideology is not only right but recognized by a

large community of people. One should note, however, that both violent and nonviolent ideological groups had websites incorporating new and traditional forms of media to spread their messages and did not differ significantly from one another on these characteristics as shown by the paired comparison analyses.

Another important predictor of violent ideological group websites observed in this study was the presence of emotionally evocative graphics and images. The Tukey post hoc procedure similarly showed a greater presence of affectively-charged images in the violent ideological group sites than the nonviolent nonideological group websites. Previous discussions of ideological groups have highlighted the importance of affective processes in the indoctrination and maintenance of ideological group members (cf. Wood, 2000; Spoor & Kelly, 2004; (Monroe, Hankin, & Van Vechten, 2000). Consistent with the notion that affective framing helps foster group commitment and builds a sense of group identity (Author, 2008c), violent ideological websites included in our study revealed a reliance on such emotionally laden images.

Finally, the websites of violent ideological groups were predicted by a strictly controlled online community. Post hoc analyses confirmed this increased tightness of control present in violent ideological group sites over nonviolent nonideological group websites. Not only were violent ideological group sites more difficult to access, but they featured more explicitly defined rules and regulations as well as less user control over online settings, content, and information. A common feature of nonideological group sites in addition to nonviolent ideological group sites was the ability of members to customize their online profiles to include such things as personal information, pictures, videos, and web links. However, almost none of the violent ideological websites gave their members similar control. Further, while nearly all websites regardless of group type required new members to provide an email address before using the site's message boards or forum, only violent ideological group websites ever made it a practice to delay membership approval until an application could be officially approved by a site administrator. Also, with some of the violent ideological websites, the researchers' membership was actually removed or cancelled due to inactivity on the site. With law enforcement agencies taking an increased interest in ideological groups, especially those with a history of violence, such added security is not unexpected. It should be noted, however, that despite the increased tightness of administrator control over the websites of violent ideological groups, no membership applications filed by the researchers were ever denied. Taken as a whole, these observations suggest that although violent ideological groups are extremely protective of their ideological principles and beliefs, they must remain accessible enough in order to attract and recruit new members to their belief system.

Additional results from the multiple comparison procedures revealed a number of website characteristics showing a greater occurrence in the nonviolent ideological group sites. First, visualization capability and sophistication were higher in nonviolent ideological websites than nonviolent nonideological group and violent ideological group websites, respectively. Likely these observations are a result of the increased financial resources available to nonviolent ideological groups. Many nonviolent ideological groups openly engage in fundraising, often advertising widely online, on television, and in magazines. Though violent ideological groups also ask for donations, their appeals for monetary support are essentially limited to members on their websites. Further, nonviolent ideological group websites were rated higher than violent ideological sites on both intended informational use and inclusion of neutral information. Although all ideologues are concerned with spreading their ideological beliefs and values, nonviolent groups may be more open to discussing other topics as long as those subjects do not contradict their core ideological ideals. Finally, regarding the heightened informational intent of nonviolent ideological group sites, we believe this finding is not surprising given these groups' willingness to discuss multiple topics. Violent ideological groups use their websites to communicate their ideological message but oftentimes do so without sharing evidence for their position. Instead, the superiority of their worldview

is assumed. On the other hand, nonviolent ideologues, while unwavering in their convictions, use their online communities to convince others of their beneficial and morally just way of thinking. Therefore, for nonviolent ideological groups, sharing information in support of their beliefs is commonplace and a preferred approach to lending support to their cause.

As important as these findings are, we must acknowledge a few limitations of this study. First, our sample of group websites was limited to a total of 36 with only 12 groups in each of the three categories (i.e., nonviolent nonideological, nonviolent ideological, violent ideological). It would be inappropriate to assume that the group websites selected for investigation in this study are representative of all websites belonging to the different group types. In fact, some group websites were excluded due to characteristics of the site such as substantial membership fees or changing webpage content. Other sites were not coded as a result of canceled memberships as explained previously. Nonetheless, we were able to identify specific website characteristics that did predict violent ideological group membership despite our limited number of group sites. Also, only violent ideological group websites ever canceled our membership, lending even more evidence for the tight control maintained by these types of extreme groups. What is more, the violent ideological groups examined in this study varied drastically in relation to the focus of their ideologies. For example, PETA is concerned with the ethical treatment of animal whereas Army of God is a group that opposes abortion and homosexuality. Indeed, our results demonstrate that the manner in which a violent ideological group uses its website to communicate its beliefs and values is seemingly unaffected by the message of its ideology. Unfortunately, the small sample sizes did not permit within-group analyses to test whether specific ideological values could be predicted by website characteristics. Future research should examine this issue to determine if differences exist among violent ideological groups regarding website use and design.

Another limitation that must be considered is the select group of predictors examined in this study. Websites are very dynamic and complex. With changing content and material embedded within layers of interconnected pages, it was not practical to code certain features in this study. Further, because the features that were coded also are susceptible to website modifications, subsequent research should try to replicate our findings in order to determine if the current predictors remain stable over time.

Also, one must take into account the criteria used to select our groups. In particular, groups were included only if their online community had a message board dedicated to the group. This inclusion criterion stemmed from our desire to examine message board characteristics in this study. However, many group websites do not have a message board or forum. It is possible that these groups have regular face-to-face gatherings or they use traditional media outlets such as newsletters in order to socialize and share information. Whatever the case, studies should seek to broaden our knowledge of online groups and their behavior by investigating an even greater number of group websites. To be sure, as political, hobby, self-help, and hate groups all find a home on the internet, understanding how these groups use the World Wide Web to share information and provide a place for their members to communicate and socialize is an important endeavor for research to pursue.

Even taking these limitations in to consideration, the present study offers some significant implications for the study of computer-mediated research on groups. Unmistakably, the internet has provided a truly unique environment for groups to communicate. Members from across the world can interact with each other virtually or make plans for meeting in person (Author, in press). Also, groups can use online websites as a means of recruiting new members and promoting their shared interests or, in some cases, their ideology (Southern Poverty Law Center, 2000). Because groups founded on an ideological system may be particularly attractive to individuals seeking an identity with others (Shamir, House, & Arthur, 1993), prosocial groups such as community service organizations or special needs advocates could adopt some of the same strategies used by online violent ideological groups in creating websites that are appealing and welcoming to prospective members.

Further, given the prominence of online groups in today's culture, knowing a group's underlying values especially with respect to their stance on violence is critical. As we observed while conducting this study, even a known violent ideological group's proclivity for violent behavior is not always apparent after viewing its website content. Our results demonstrate, however, that by studying the way a group uses the internet to facilitate group member communication and express its worldview, website characteristics can be used as predictors of an ideological group's tendency towards violence. Future research should work towards identifying more website characteristics and online behavior that could inform law enforcement or watchdog agencies about groups that may be likely to commit violent acts.

In the midst of a global landscape wrought with war against ideological extremists and the presence of violent ideological groups in positions of political power, increasing our knowledge and understanding of these types of groups is critical if we are to effectively communicate with or combat them. Just as important is the need for more research focusing on their online activity. Certainly, the internet has become a key medium for ideological group operations (Stanton, 2002) and online forums a primary means of group member communication (Author, in press). The present study has taken a significant step forward towards understanding how violent ideological groups use the internet as a means of ideological expression, information sharing, and intragroup interaction. Our results have revealed promising findings that specific and identifiable website characteristics exist that can effectively predict a group's violent ideological status.

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