Friends, Foes, and Fringe: Norms and Structure in Political Discussion Networks

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ABSTRACT

Online discussion groups have a network structure that emerges from the interactions of thousands of participants, writing in thousands of topical threads. This structure varies greatly according to the type of discussion group, such as technical, fan or support. Political groups have their own distinctive structure, organized around ideologically polarized clusters of participants. Whereas in some other groups, individuals who vehemently disagree with the mainstream might be ignored or ostracized, in political groups most participants preferentially interact with "opponents" and ignore "friends." And yet, there is a type of opponent whose ideas are so far from the field of debate as to be ignored by most or nearly all other participants. This difference is starkly apparent in network diagrams of discussion groups. The core of highly participative discussants contains opponents from different ideological clusters, tightly bound in debate. But fringe contributors, sometimes called "trolls", are relegated to peripheral positions by central actors' lack of interest in responding to their provocations or views. Network visualizations of this phenomenon illustrate how macro-level structure arises and is maintained by micro-level discursive choices.

General Terms
Design, Theory.

Keywords
Public sphere, democracy, e-government, politics, online forum.

1. INTRODUCTION
The internet offers numerous modes of online discussion, with many different forms of control. Some empower one person to control agenda and content. Blogs are perhaps the most extreme version of this, in which one person contributes most of the content and can censor, delete or disallow feedback from others. Moderated discussion groups offer a less extreme version of such control, in which discussants are expected to carry on the majority of the discourse. Still other forums allow collaborative, group controls. Slashdot is a premiere example, in which users deploy randomly assigned rating points to grade particular comments up or down, making them more or less visible to subsequent readers [1]. If we envision a continuum of control, from the dictatorial blog on the one hand, through the constitutional monarchy of moderated discussion, to the kind of Athenian democracy (power being

randomly assigned to "citizens" for short durations) of Slashdot, the extreme anarchic pole is perhaps best represented by USENET [2].

Except in the case of a relatively few moderated discussions, USENET offers no overt forms of control to any participant. At most, one author can add disfavored others to their "killfile" and thus turn a deaf ear toward them. But they cannot diminish any other author's access to the forum, and their only real power is to choose people to engage with, by deciding which posts to reply to. And yet, despite the "anarchy" of USENET, its various newsgroups feature stable, measurable structural characteristics. Somehow, order is maintained. And most interestingly, these regular structures vary greatly according to the social purpose of the newsgroup. For instance, a technical newsgroup, populated mainly with questions from the befuddled many and answers by the expert few, has a very different network profile than a support group, in which many regulars send welcoming messages to newcomers and there are broadly-distributed exchanges of advice and emotional solidarity[3].

Political newsgroups have their own distinctive network characteristics, and offer an interesting lesson in how regular structural features emerge from individual-level choices [4]. Despite persuasive speculation [5] and the tentative findings of some early internet research efforts [6], online political discussions need not necessarily become echo-chambers of the like-minded. The tendency to political homophily clearly exists in blogs [7] and seems to appear as well in more controlled environments featuring gatekeepers of one sort or another, but the kind of open, anarchic discussions found on USENET have quite the opposite tendency. We have previously found that debate, not agreement or reinforcement, is the dominant activity in political groups [8].

Consider the implications of a genre of discourse based around debate rather than information-sharing, emotional support, social coordination, or some other purpose. Clearly the latter sort of groups feature rather decisive forms of boundary-maintenance. In a technical newsgroup about Unix (for instance), someone offering a recipe for meatloaf would probably be ignored. Likewise someone posing as a Unix expert but offering fallacious advice would soon be identified as a charlatan [9], and likewise ignored. In a cancer support group, an author attacking the attitudes of other authors and offering detailed disputations of their posts would be

denounced and subsequently ignored by the community. In most newsgroups, antagonism and perceived wrongfulness are a ticket to rapid ostracism through the collective silence of the core author population. Only "newbies" speak to "trolls," and only until admonished by more seasoned members of the newsgroup.

By contrast, it would at first blush seem like political newsgroups have no need of such boundary-maintenance. As we found previously, the great majority of authors (let us call them *fighters)* preferentially respond to messages from those on the other side; they respond to opponents more often than their allies. A second, smaller group of authors (we can call them *friendlies*) direct their attention to allies and refuse to engage opponents, despite the fact that they are routinely ignored by the former and harangued by the latter. Because their opponents do not reciprocate their discursive predilections by ignoring them, the *friendlies* are just as central to a political newsgroup's core discussion network as the much more numerous *fighters*. In a political newsgroup, you cannot be left alone by the opposing cluster if you try. Indeed, it would seem that the only way to opt out of the fight is by opting out of the newsgroup altogether. But, interestingly and (to us) quite unexpectedly, there is a third type of author, even rarer, who tries hard not to be ignored, and nevertheless is. This type of author—the "fringe"—shows that boundary maintenance is at work in political newsgroups as well, and raises interesting questions for qualitative study.

We discovered this type of author serendipitously, while looking at ego network diagrams of core political newsgroup authors. In the following section we will take a look at some of these network diagrams, and see how they illustrate the link between authors' micro-level choices about who to talk to, and macro-level structure of the discussion network. We also see boundary maintenance at work in an environment where most "enemies" are *good,* in the sense of being in demand, but not all enemies.

2. DISCUSSION NETWORKS

The current paper builds on the same data as our previous research [8], which contains a detailed account of the base data collection and analysis. In brief, core authors were identified for eight political newsgroups during November, 2003. Microsoft Research's Netscan tool was used to capture a wide range of data on author behavior and thread structure, and was used to extract network data on core author behavior during the time frame. A *core author* is one who was among the twenty to forty most frequent (in terms of days active) contributors to the newsgroup during that month. A corpus of threaded political discussions was assembled containing hundreds of posts by all core authors. These were coded for evidence of political attitudes and for aspects of discursive behavior. Authors were clustered according to political attitudes, with only a small few found to be unclassifiable.

In the previous work, we showed that political newsgroups were found to have some distinctive features:

1. Almost all participants can be meaningfully assigned to distinct ideological or issue position clusters, depending on the particular newsgroup, for instance *left* and *right,* or *pro-choice* and *pro-life.*

2. Most newsgroups are bi-polar, in the sense of being organized around two dominant opposing clusters. In principle, some newsgroups could be multi-polar: one of the eight studied in [8] appeared to be centered around three dominant sides.

3. Replies to posts—and thus newsgroup interaction-- is overwhelmingly across ideological or issue clusters, not within them.

4. Most authors choose to reply to messages by their opponents over their allies, and respond to far more messages on average from individual opponents than to individual allies. Further, [4] argues that political group members prefer to respond to people who are well-embedded in the conversation over new members.

5. Those rare authors who prefer to reply to allies are themselves, nevertheless, disproportionately
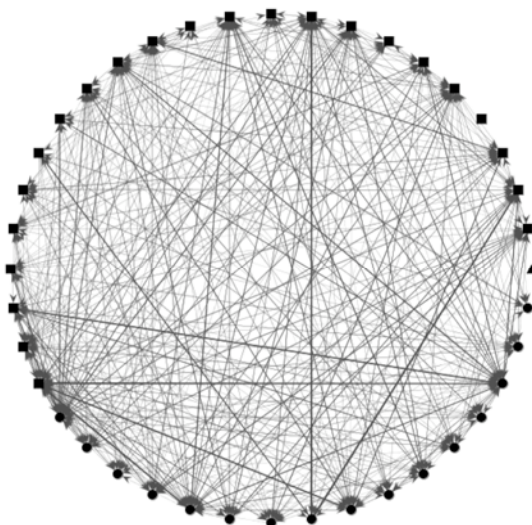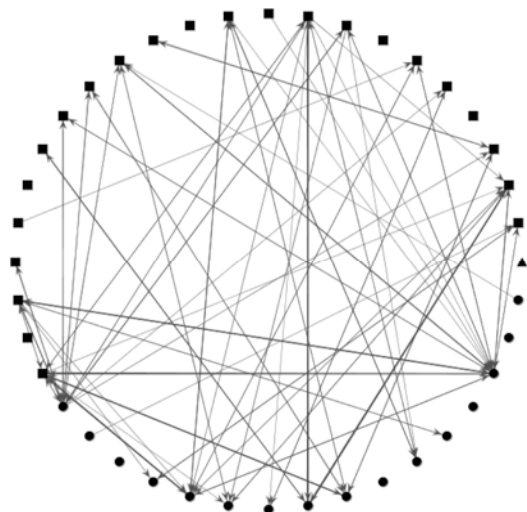

fig. 1 (link = 1 reply)

fig.2 (link = 6 replies)

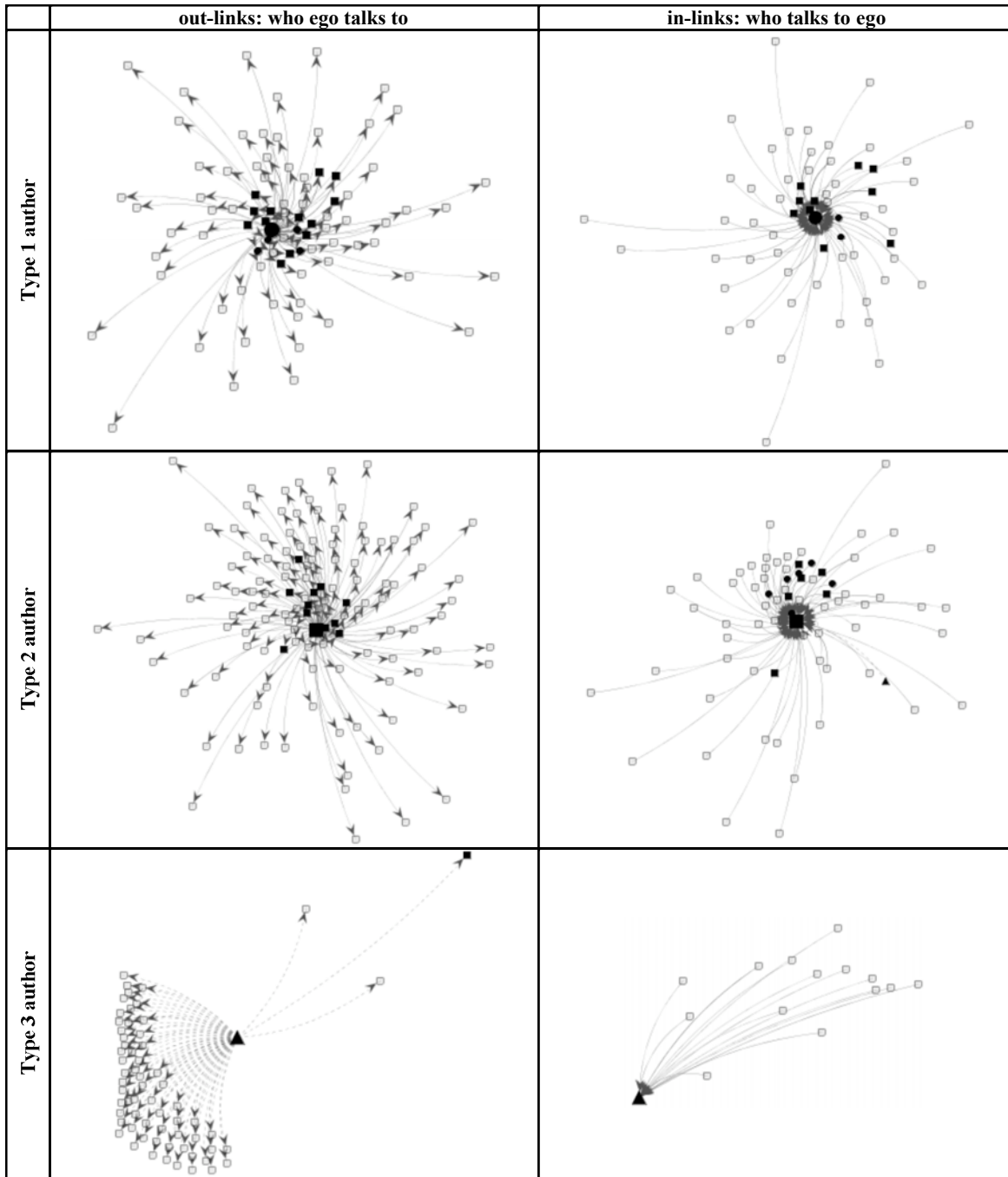|	out-links: who ego talks to	in-links: who talks to ego
Type 1 author		
Type 2 author		
Type 3 author		

Figure 3: author choices and network response

responded to by opponents. Because of these authors, "in-links" (i.e. responses to an author by others) are very highly predictive of that author's political position, much more so than their "out-links" (i.e. whom they choose to respond to).

6. There are tendencies toward balance in political newsgroups, in the following two patterns:

a. Groups focused on a range of issues and featuring clusters best described as *ideological* (left/right, liberal/conservative, socialist/capitalist, etc) are generally balanced in both the populations of regular authors belonging to each cluster, and in the amount of message traffic generated by each cluster.

b. Groups focused on a single contentious issue, like abortion or Middle East politics, are generally unbalanced in the population
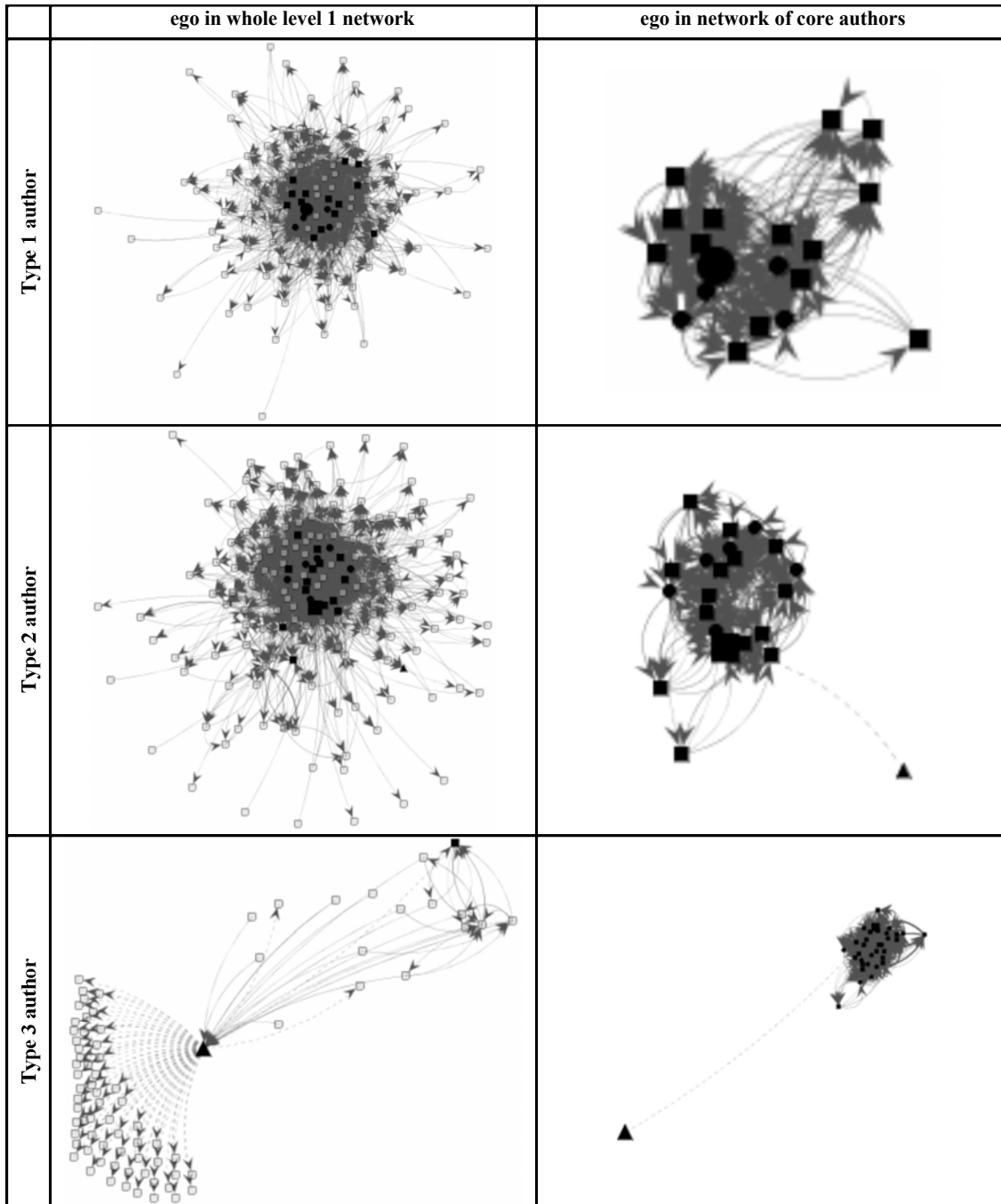
	ego in whole level 1 network	ego in network of core authors
Type 1 author		
Type 2 author		
Type 3 author		

Figure 4: network position by author type

of authors belonging to each *issue-position* cluster, yet the minority authors post more messages on average and the message traffic generated by the clusters is thus significantly more balanced than the author populations.

As we will see in detail, these political and discursive tendencies yield a network structure in which an author population of discursive opponents, though politically clustered into two (or potentially more) distinct groups, are tightly bound in a central discussion core by dense bonds of replies that tie opponents to one another more tightly than allies.

This does not mean that authors don't reply periodically to people who agree with them. If a network tie is considered to be a single reply, the core author population is so densely connected as to form almost a complete graph, i.e. a network is which all nodes are directly connected (Figure 1). To see the structure more clearly we must raise the number of replies that constitute a link, filtering out weaker bonds (Figure 2). Figures 1 and 2 show linked discussion cores from the newsgroup alt.politics.bush.

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In those figures, nodes representing the core authors are laid out in a circle; authors who share a political position are placed near each other: liberals near other liberals (circles); conservatives near other conservatives (squares). Edges with arrows connect replies: an author "points to" another author by replying; more replies get a thicker edge.

Differences among types of political authors arise from their discursive behavior, and can be seen in a.) their choices about whom to reply to, b.) decisions by network members to reply to them, and c.) their position in the network structure arising from *a* and *b* (in combination with the same relationships among other actors in the network). In Figure 3 we can see micro-level features of author behavior, and the network's response, for the three types of author. In those figures, too, persons holding opposing political positions are represented by squares and circles. Minor players—not in the core—are drawn as smaller gray shapes. A *fighter* (type 1 author) preferentially responds to opponents (out-links), and is likewise responded to mainly by opponents (in-links), and with only partial reciprocation from friends. The *friendly* (type 2 author) responds only to friends, most of whom do not reciprocate, and is responded to by a number of opponents anyway.

The *fringe* author exists at the edge of acceptable discourse within the group. Remember that the *fringe* author only shows up in the analysis because he is a regular contributor to the newsgroup, posting messages to it nearly every day. The *fringe* author's views are extreme and do not fall into the newsgroup's dominant ideological clusters (and so is coded as a triangle). This fringe author is a provocateur, posting a great number of initiating posts rather than replies. Many of the replies that he posts are "crossposts": he replies to a message in a different group and adds this group to the conversation. (Crossposts are symbolized with dotted lines.) The author's reply to a message by a core author (coded with a square) is ignored, and the only responses from the mainstream newsgroup population come from new and/or infrequent participants ("newbies," coded light gray).

If we now turn from micro-level reply behavior to network structure, certain implications of that behavior are clear. The network diagrams of figure 2 use a so-called "physics model": nodes repel from ones they are not linked to, and try to be a fixed distance from ones that they are linked to. Roughly, "close" suggests "likely to be connected", while "far" suggests "less likely to be connected." In these ego diagrams (ego is the biggest node), we can see that both *fighters* and *friendlies* are well-enmeshed in the discussion core. In fact, it is impossible to tell the difference between the two based on overall network position, because the replies to their messages are so dense. In contrast, the *fringe* author sticks out like a sore thumb. An author whose views are not seen as worthy of rebuttal or response by core authors is, figuratively speaking, and graphically visible, expelled from the network. Here we see boundary maintenance at work.

The group uses the one tool available to them, then, to maintain the boundary of "acceptable dialog": they ignore this fringe author, giving him little satisfaction of triggering a broader discussion. Even in an arena dedicated to opposition—where every issue is contentious—the group comes to accord on what issues are not discussed, and leaves them behind.

3. CONCLUSION

Our example *fringe* author just one instance of the type. We have observed other fringe authors in different newsgroups, also far from the mainstream of debate. Their ego networks are similarly distinctive: they are isolated, garnering few responses from the active core of the newsgroup. Some of them attempt to reply more to core authors, some of them generate more or fewer seed posts, but all of them are relegated to the network periphery by the lack of demand for their ideas. What is very important to recognize, and very interesting, is that they are not marginalized because their ideas are uncomfortable, contentious, or, simply, disagreed with by others.

Keep in mind that most interaction, in fact the soul of interaction, in political newsgroups is strong, often vehement, disagreement between opponents. One finds Marxists sparring with Libertarians, liberal Democrats battling conservative Republicans, "pro-life" opponents of abortion calling "pro-choice" authors "murderers," Israeli citizens arguing with Arab nationalists who think Israel should be pushed into the sea, etc. In USENET political newsgroups one finds people with strong and often irreconcilable views fighting each other in extended chains of argumentation. Sometimes it is emotional, with name calling of the worst sort. Sometimes it is highly rational, with detailed point-by-point rebuttals of quoted sentences and paragraphs. USENET authors seek out those with whom they disagree and expend enormous energy arguing with them. But the authors we here call *fringe* usually can't get the time of day.

This behavior is noticeably different than that described by Baker [9]. Baker describes an amiable group, fans of a popular television show, who try to work over a period of several months to understand and change the behavior of an egregious "troll". The group repeatedly engages the troll, responding to his posts and discussing his ideas, attempting to change his mind. Nowhere does he document a notion of ignoring the troll.

The reason for this requires further investigation no doubt, but is interesting to ponder. How might trolls and *fringe* authors be alike and how different? In some ways, the *fringe* authors behave like trolls, for instance posting incendiary messages and cross-posting their responses to messages into lots of other newsgroups. In other ways, including motivation, they may differ. Trolls often seem to be out to inflame other participants for the sake of being troublesome or disruptive, often appearing disingenuous or inauthentic to an experienced reader. By contrast, *fringe* authors in political groups usually seem quite sincere in their adherence to fanatical views. So, are *fringe* authors a type of troll? Or are both simply cases of bad citizens in the discursive community? Or are they very different types of actor altogether? In terms of behavior and motivation, and also network response, we should look more closely at *fringe* authors in relation to the more well-studied troll.

The *fringe* authors we have encountered are exactly the ones one would hope to find marginalized in a political discussion network. They are the sort who quote the "Protocols of the Elders of Zion" and offer genetic justifications for racial discrimination. Their views are not ignored because they are considered objectionable or extreme; indeed, extremity is often incorporated into the discussion. They are ignored because their ideas are not considered even mildly relevant to

any debate that anyone, on whichever side of whichever spectrum, wants to have. They are not even worthy of rebuttal.

What people participating in political discourse care to discuss, as well as the particular attitudes they have about any given topic, are meaningfully related to the structure of concerns and attitudes in the larger political society to which they belong. In that larger society there are well-established political issues, frames and philosophies. To be involved in democratic life is to be engaged with these. People sometimes fear the internet as a political discussion medium. On the one hand it is accused of promoting smug, ideologically insular echo-chambers, and on the other it is said to hand the keys of the castle to Nazis, violent anarchists, and other assorted ideological bogeymen. But we should take heart from the findings of this study. In anarchic (in terms of rules of governance, not political philosophy) online political discourse networks, there is active boundary maintenance, informed by group norms held even among those who disagree strongly with one another about the topics under discussion. An author must be interesting to be engaged. The discourse network is shaped, and maintained, by *demand*, not *supply*. An implication of this is clear. What threatens democratic online political discourse and invites the worst sort of extremity is not the presence of radical voices, but the absence of reasoned ones.

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