Introductions
Following the 2016 Presidential Election where Twitter discussion played a major role in influencing the Election results, a relevant question is how much of political Twitter discussion is manipulated by Twitter bots, software programs disguised as human users. Twitter bots often organize into botnets, communities of Twitter bots that promote specific content by creating dense retweet and mention networks. One cyborg botnet, a human-assisted botnet, recently gaining attention for its ability to influence political Twitter discussion is the Patriot Journalist Network (PJNet).

PJNet
PJNet is a self-identified group of conservative Twitter users whose mission is to influence Twitter discussions through automated tweeting and retweeting via PJNet’s third party Twitter application. PJNet organizes its members via the hashtag rally schedule, which consists of the date and time of hashtag rallies during which members should tweet specific hashtags that are updated weekly. Members can pick from an assortment of pre-written tweets with hashtag rally hashtags and political memes for PJNet’s Twitter application to tweet on their behalf. The PJNet botnet retweets PJNet tweets in order to promote members’ tweets and generate the illusion of a larger PJNet community.

Key Findings
- PJNet uses a combination of long term and short term hashtags to dominate current political discussion, promote its content, and give PJNet members a larger voice than they would otherwise have.
- Long term hashtags (ex: #RenewUS, #EMPOWER) cultivate a core dedicated user base and maintain PJNet’s image as a group motivated by Christian values and a tool for Christian Twitter users who want to make a difference in politics.
- PJNet uses its core following combined with automatic tweeting and retweeting to promote and hijack short term hashtags (ex: #ConfirmGorsuch, #FullRepeal) directed at popular, current political issues to spread PJNet’s brand and opinions.

Discussion
- Twitter bots like PJNet amplify the voices of a small number of individuals while feigning the existence of a large grassroots movement.
- Studies show that political social media messages delivered by sources perceived as trusted can influence voter behavior.1
- PJNet presents itself as a trusted source through its long-term hashtags and its illusion of being a human grassroots movement.
- PJNet has a core group of human users that give the botnet a human face, front, and voice.
- PJNet’s deception combined with its domination of popular political Twitter discussions via hashtags gives it the power to influence actual Twitter users’ political opinions and actions.

Future Research
Future research will be directed towards detecting such well hidden botnets as PJNet so that these botnets can be identified and flagged on Twitter, allowing Twitter users to determine the true nature of the support for or resistance against political ideas on Twitter.


This work was supported in part by the Office of Naval Research Minerva Grant N000141310835 and the Center for Computational Analysis of Social and Organization Systems (CASOS). The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the Office of Naval Research, or the U.S. government.