Examining Strategic Integration of Social Media Platforms in Tracking Disinformation Campaign Coordination: Analysis in the Asia Pacific Region

Muhammad Nihal Hussain and Nitin Agarwal

Collaboratorium for Social Media and Online Behavioral Studies (COSMOS)
University of Arkansas – Little Rock
{mnhussain, nxagarwal}@ualr.edu

Abstract

Social media is a widely used communication platform that affords easier sharing and access to information. Although social media is used for benign purposes, a few use this platform for deviant activities such as cyberbullying, cyber warfare or propaganda, disinformation and fake news dissemination to influence the masses. With the availability of inexpensive and ubiquitous mass communication tools like social media, disseminating hoax, false information, and propaganda is both convenient and effective. Lately, YouTube, akin to other social media sites, has become a vehicle for spreading fake news, propaganda, conspiracy theories, and radicalizing content. However, lack in effective image and video processing techniques has hindered research on YouTube. In this study, we explore algorithmic manipulation strategies being used to spread disinformation in the APAC region especially related to the conflict in South China Sea. We use social network analysis, cyber forensics analysis, and content analysis to identify prominent adversarial information actors leading these disinformation campaigns.

1. Introduction

During the 2011 Egyptian revolution, the 2012 Arab Spring, and the subsequent Occupy movements worldwide, blogs and social media were regarded as powerful democratizing tools. With the proliferation of smart devices, mobile applications, and social network platforms, the effects of these technologies have become more profound, especially during social and political movements. These modern social information systems have since been largely considered as positive vehicles of transformation – be it social, political, or economic. However, several journalistic and recent academic investigations have reported that these social media platforms (e.g., Twitter, Facebook, blogs, YouTube, etc. and the "deep web" channels) are strategically used to coordinate cyber propaganda campaigns. The democratizing power of social media has been recently harnessed by state/non-state actors, extremists, and terrorist groups to influence online discourse, steer mass thinking, and polarize communities, posing a dangerous force against democracy. Moreover, due to the afforded anonymity and perceived less personal risk of connecting and acting online, adversarial cyber campaigns are becoming increasingly common among socio-technically competent "hacktivist" groups to provoke hysteria, influence mass opinions, stoke civil unrest, effect civil conflict, or even coordinate (cyber)-attacks. Such deviant behaviors are categorized as the new face of transnational crime organizations that could pose significant risks to social, political, and economic stability.

Free to use, low barrier of publication, and a casual environment on social media puts the quality of the information presented on these platforms at a great risk. Though there are several million users and voices, a very tiny fraction has an audience. Moreover, these voices are quite unrepresentative of the broader electorate. Social Media platforms have done far less to amplify the political voice of average citizens. Instead certain narratives get amplified. Low barrier to publication has guaranteed anyone with anything on mind – true or false, fact or opinion, fair or biased – can post and make it available for the entire world to peruse. At a time when people like to get their news from social media rather than mainstream media, irresponsible citizen journalism poses a threat to democratic principles and institutions by misrepresenting facts and information. Pew Research Center conducted a poll in the U.S. on reputable sources of information [1] and reported that over one-third (34%) people trusted news from social media sources. Over three-fourth (77%) people trusted information from friends and family shared through a variety of means including blogs and social media channels. These statistics show the dangerous ability of social media in conducting influence operations to manipulate public discourse.

Plenty of empirical evidence exists that demonstrates the role blogs have played in the constant barrage of fake news and misinformation during various regional as well as global geopolitical events during the last several years. The 2016 U.S. Presidential elections (Subramanian, 2017) is one of the most prominent examples,

where several misinformation-riddled stories were planted in clickbait-driven post truth media for financial and political incentives. Macedonian teens tapped into the digital gold rush by setting up several blogs with content copied verbatim from alt-right news sites. During the Ukraine-Russia crisis, sites like LiveJournal, blogging platforms, and ВКонтакте (VKontakte – a Russian social media platform) have been used as propaganda machines to justify Kremlin's policies and actions (Allen 2014, Bohlen 2014). According to Interpret Magazine, Kremlin recruited over 250 trolls, each being paid $917 per month to work round the clock to produce posts on social media and mainstream media. These trolls would manage a stream of invective against unflattering Western articles about Russia and pro-Ukrainian media by posting several comments and blog posts a day using multiple 'sock puppet' accounts. Such troll armies (or more commonly known as 'web brigades') piggyback on the popularity of social media to disseminate fake pictures and videos and coordinate some of the very effective disinformation campaigns, to which even legitimate news organization could fall prey. To stem the tide of fakery or at least make people aware, online crowdsourcing-based efforts like StopFake.org and euvsdisinfo.eu have been created to identify and debunk fake imagery and stories about the war in Ukraine. However, such efforts are severely limited and easily outnumbered by the vast troll armies.

Discussions on social media could spill over to mainstream media legitimizing the information. In August 2016, while a vigorous national debate was underway on whether Sweden should enter a military partnership with NATO, officials in Stockholm suddenly encountered an unsettling problem: a flood of distorted and outright false information on social media, confusing public perceptions of the issue [2]. The claims were alarming: If Sweden, a non-NATO member, signed the deal, the alliance would stockpile secret nuclear weapons on Swedish soil; NATO could attack Russia from Sweden without government approval; NATO soldiers, immune from prosecution, could rape Swedish women without fear of criminal charges. They were all false, but the disinformation spilled into the traditional news media. As the Swedish defense minister, Peter Hultqvist, traveled the country to promote the pact in speeches and town hall meetings, he was repeatedly grilled about the bogus stories. A largely unstated message of these propaganda campaigns is that European governments lack the competence to deal with the crises they face, particularly immigration and terrorism, and that their officials are all American puppets. Speaking during the 75th anniversary of the Soviet Information Bureau, Mr. Dmitry Kiselyev said the age of neutral journalism was over. "If we do propaganda, then you do propaganda, too," he said, directing his message to Western journalists, in an interview on the state-run Rossiya 24 network. He continued, "While the business of "persuasion" is more expensive now, if you can persuade a person, you don't need to kill him.". Such disinformation dissemination efforts leverage a variety of social media tactics, especially the use of videos in disseminating agitation propaganda.

YouTube being the largest video sharing website, is used to host radicalizing content by deviant actos. According to Alexa [3], an Internet traffic monitoring service, it is the second most popular website that accounts for 20% of web traffic. Around 300 hours of videos are uploaded every minute and 1 billion hours of videos are watched each day [4] [5]. Any user can sign up and upload videos or engage with existing videos (view, like, dislike or comment) on YouTube. Free to use, low barrier for uploading videos on YouTube has made it one of the fastest growing medium for behavioral steering, with various production styles catering to specific demographics (e.g., teens and youth) subjecting them to conspiracy theories, disinformation campaigns, and radicalization strategies. Prolific linking of YouTube videos in tweets, blogs, Telegram posts, etc. has led to an unprecedented convenience in framing narratives, disseminate it wildly, and drive online traffic to develop rich discourse. In addition to content promotion, active media integration strategy helps in artificially boosting search ranking – a technique known as *link farming* is a well-known search engine optimization strategy. Gaming search engines using prolific linking across social media ecosystem is now a part of the modern cyber influence operations.

In this paper, we explore algorithmic manipulation strategies [6] being used to spread fake news in the APAC region especially related to the conflict in South China Sea. We use social network analysis to identify prominent adversarial information actors leading these disinformation campaigns.

Currently, the United States and our global partners are in the infancy of where participatory media, technology, and policy meet — a lawless Wild West of social media — calling for rigorous studies on sociotechnical behavioral modeling, content generation and censorship in social media, cyber-threat assessment, cyber-diplomacy, cyber-human systems, or social computing technologies in general, to develop methodologies to diagnose novel pathologies of online social media. This research is a step towards that direction.

References
[1] M. Barthel and A. Mitchell, "Americans' Attitudes About the News Media Deeply Divided Along Partisan Lines," *Pew Research Center's Journalism Project*, 10-May-2017.

[2] N. MacFarquhar, "A Powerful Russian Weapon: The Spread of False Stories," *The New York Times*, 28-Aug-2016.

[3] "Youtube.com Traffic, Demographics and Competitors - Alexa." [Online]. Available: https://www.alexa.com/siteinfo/youtube.com. [Accessed: 03-Jun-2018].

[4] Y. Press, "YouTube for Press," *YouTube*. [Online]. Available: https://www.youtube.com/intl/en-GB/yt/about/press/. [Accessed: 13-Dec-2017].

[5] "Youtube Statistics - 2018," *MerchDope*, 26-Apr-2018.

[6] M. N. Hussain, S. Tokdemir, N. Agarwal, and S. Al-Khateeb, "Analyzing Disinformation and Crowd Manipulation Tactics on YouTube," in *2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, 2018, pp. 1092–1095.