

# PREDICTING THE ESCALATION TO VIOLENCE OF ONLINE HATE GROUPS

Date: November 24, 2021

Disclaimer: This briefing note contains the encapsulation of views presented by the speaker and does not exclusively represent the views of the Canadian Association for Security and Intelligence Studies.

## **KEY EVENTS**

On November 24, 2021, Natalie Archutowski presented on the topic of *Predicting the Escalation to Violence of Online Hate Groups* at the 2021 CASIS West Coast Security Conference. Primary topics of discussion included influencers on right wing websites, the effects of algorithms using traditional hate speech terms, the correlation between softly violent culturally nuanced hate speech and kinetic violence, and models used to help determine the presence of soft violence and the likelihood of escalation. The presentation was followed by a question and answer period and a breakout room session with questions from the audience and CASIS Vancouver executives.

## NATURE OF DISCUSSION

#### Presentation

Ms. Archutowski's presentation focused on findings from a project conducted in conjunction with the Predicting Escalation project team from the SFU Big Data Hub. The presentation provided an overview of the models and frameworks developed to identify the potential for escalation and the linguistic differences between the different levels of radicalization. The models discussed included the Pinehurst Model, the Gods of Violence - TREX model, the Civic Discord Model, the Radical Milieu Model, the What If/Social Momentum Technique, and the Landscape Amnesia Thermometer.

#### **Question Period**

During the question and answer period Ms. Archutowski discussed the importance of differentiating extremist groups, their financing, and cooperation.

The importance of critical thinking and communication between law enforcement officials, academics, and decision makers was also discussed.

#### BACKGROUND

#### Presentation

Ms. Archutowski began her presentation by noting that the Predicting Escalation project used linguistics, visual analytics, sentiment analysis, and lethal force models in order to inspect how hate was expressed online. Culturally nuanced hate speech found in the forum threads of the Daily Stormer was analyzed in hopes of understanding extremist actor identity construction. The main conclusions included that Canadians do influence American white supremacist websites and algorithms using traditional hate speech terms were inadequate in identifying toxic records. Another notable point was that the greater the presence of softly violent culturally nuanced hate speech, the more likely users in the community were to express 'violent' utterances. Should the hate speech on echo chambers such as the Daily Stormer be left unaddressed, Ms. Archutowski and her team predicted an increase of online and physical violent expression and that traditional search engines arguably could leave Culturally Nuanced Hate Speech (CNHS) undetected.

CNHS arguably provides a method of language deliverance for right-wing extremist (RWE) actors. They are typically cloaked in metaphors, cultural and historic references, and memes that transmit a message to a specific, culturally aware segment of RWE participants and targets while remaining unrecognized by the general public. Without a grounding in white supremacist literature, it was found that the algorithms were unable to identify instances of culturally nuanced hate speech or even calls to action.

Therefore, Ms. Archutowski and her team chose to rewrite their algorithm using a special white supremacist/extremist lexicon in order to identify the cultural nuances to tell if there was violence present in the dataset and if it could lead to physical violence. From their findings, they noticed that soft violence, which can include memes, can be examined in order to predict the likelihood of certain communities becoming kinetically violent. Additionally, these findings showed that there were clear linguistic differences between degrees of radicalization.

From this, Ms. Archutowski presented three questions that aided in advancing her team's research—how do Canadians who post in violent extremist forums construct identity? How do they express hate? And how do they visualize



violence from threat intimidation to full physical kinetic violence? Regarding identity, Canadians describe themselves as powerless and in need of radical changes to immigration. In the case of how Canadians express hate, it was discovered that they reduce other races to memes or animals as a form of dehumanization. Finally, Canadians visualized violence in colloquial terms. For example, "at least there is not so many of them here" or "day of the rope" were used in CNHS.

These findings lead the team to ask, to what degree does identity cohesion indicate a likelihood to commit violence? It might be said that the greater the identity cohesion, the greater the likelihood of violence appears to be the answer within Violent Transnational Social Movements (VTSMs). Ms. Archutowski mentioned that part of understanding VTSMs is understanding the balance between identity and violence. Building off of Dr. Sophia Moskalenko and Dr. Clark MacCauley's work on echo chambers and the changing of meta narratives, Ms. Archutowski's team used/developed a number of models that helped demonstrate not only how identity-based group violence is normalised into an acceptable range of behaviour, but also how the social nature of socially acceptable violence as well as kinetic violence becomes increasingly centralised in terms of the group's meta opinion.

The Pinehurst Model helps law enforcement identify identity-based movements in their transition from soft to kinetic violence. It forces the analyst to examine the role of identity in the rationalization of an escalation to violence. The model identifies what variables may indicate the transition point where a VTSM moves from soft violence to kinetic violence. It can also be used to aid analysts to track the development and maturity of VTSMs and to discern a shift by these collectives to possible kinetic action. This is a useful tool for policing and law enforcement because it allows for community impact and resource allocation assessment decision-making and undercover operations to be quite targeted and specific with a clear understanding of potential weaknesses.

Another model used looked at the linguistic syntax of online social media users to predict an increased likelihood of kinetic violence as they go into the physical space. The model does this by using natural language processing, big data analysis, linguistic analysis, sentiment analysis, social network analysis, machine learning, and artificial intelligence in order to identify individuals of interest prior to real world violent actions.

The Gods of Violence–TREX Model is another example of how Ms. Archutowski's team identified groups that use soft violence and thereby



distinguish between gangs, organized crime groups, terrorists (who tend to be kinetic), and extremist groups, who use soft violence extensively. Ms. Archutowski noted that it is a decision-making rapid response model, for public safety and police analysts, which identifies the organizational culture & the unique structure of violent groups and hybrid actors.

Another example is the Civic Discord Model, which can aid law enforcement to forecast where and when increases in disorder may occur during situations of crisis, such as complex emergencies, natural disasters, and pandemic lockdowns. The Civic Discord Model uses particular variables to allow the analyst to measure the overall probability that a state of civil disorder will occur in times of crisis in a given geographical area.

The Radical Milieu Model, on the other hand, assists in the identification and assessment of the likelihood of violent criminal non-state actors thriving in particular institutional environments. By evaluating institutional strength, institutional trust, poverty rich/profit rich, governance, and oversight controls of a given environment, this model can determine how to counteract the distinct violent non-state actor typologies: gangs, organized crime, terrorist groups, and violent transnational social movements.

The next tool used was the What-If/Social Momentum Technique. This technique incorporates social network theory to the What If technique in order to enhance the understanding of social and political nuances and environments when dealing with social movements or VTSMs.

In the latter part of the presentation, Ms. Archutowski introduced the Landscape Amnesia Thermometer (LAT) and argued that law enforcement does not seem to be equipped with tools to identify the "slow trends concealed within noisy fluctuations," which signify a changing social and political environment that might help explain the rise of radical rhetoric. The LAT model might assist with understanding the environmental shifts that could lead to or explain the rise of extremist rhetoric and/or actions.

To conclude, Ms. Archutowski noted that the team found that online actions of soft violence and doxing identified on the forum Daily Stormer had the potential for physical impact on the wellbeing of recipients. Through their analysis, they found that many of the prominent Canadian users, both through their comments and the mention of their specific geographic locations, suggested that right wing extremism is not as much of an isolated problem as some would believe.



## **Question Period**

In this section, Ms. Archutowski furthered the importance of differentiating between different groups regarding policies and laws put in place with respect to groups such as the Proud Boys or Soldiers of Odin. She referred back to the models in her presentation noting that many of these would be exceptional in addressing this issue. This moved into a conversation about the similarity between the types of financing used between these different groups and the way they cooperate. She recognized that, while they may be similar, they could still contain organizational differences that make them fundamentally different.

Finally, she addressed the importance of critical thinking and communication between law enforcement officials, academics, and decision makers or policy makers to counter misinformation and conspiracy theories. Ms. Archutowski stated that it is crucial to ask 'why?' and the real intentions and motivations behind what someone would say—beyond the spoken words, what do they intend to communicate?

## **KEY POINTS OF DISCUSSION**

### Presentation

- The predicting escalation project examined the expression of hate by measuring the amount of culturally nuanced hate speech found in threads on the forum Daily Stormer in order to understand the construction of identity of extremist actors.
- Online actions of soft violence and doxing identified on the forum Daily Stormer had the potential for physical impact on the wellbeing of recipients.
- Canadians were found to be influencers on American white supremacist websites.
- The greater the presence of this softly violent culturally nuanced hate speech, the more likely users in the community were to express 'violent' utterances.
- As it stands, law enforcement does not seem to be equipped with tools to identify the "slow trends concealed within noisy fluctuations," which implies a changing social and political environment.

## **Question Period**

• The importance of differentiating different extremist groups can be found using a plethora of techniques and models, such as the Gods of Violence or TREX model, which looks at the organization structure of a group.



• Communication between law enforcement officials, academics, and decision makers or policy makers, as well as critical thinking is crucial to countering misinformation and conspiracy theories.



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