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Networks of Disinformation: The Proliferation of Hate Speech in Chile and Colombia During the Venezuelan Migration Crisis

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Networks of Disinformation: The Proliferation of Hate Speech in Chile and Colombia During the Venezuelan Migration Crisis

Isabelle Valdes
Dr. Erika Frydenlund

CS REU Final Research Presentation
Old Dominion University
Introduction

- Mentee of Research Assistant Professor, Dr. Erika Frydenlund from the Virginia Modeling, Analysis, and Simulation Center
  - + colleagues at VMASC and the Universidad del Norte in Colombia
  - + cohort members in the WS–DL lab
- Senior at the University of California, Berkeley, studying Political Science, Data Science, and Spanish
Venezuelan Refugee and Migrant Crisis

- The largest recorded refugee and migrant crisis in the Americas, over 6 million people displaced. (World Bank)
- Colombia and Chile have the first and fourth highest number of Venezuelan migrants, respectively.
- Prevailing perception that Venezuelan migrants are bringing crime, although crime data says otherwise.
- Instances of extreme anti-Venezuelan sentiment, protests, and hate crimes in both countries.
Methodology

Hashtag/Keyword Selection
- Consult fact checking organizations in Colombia and Chile, such as ColombiaCheck

Twitter query:
- One or more:
  - Veneco
  - Venecos
  - Venecas
  - Veneca
  - NoMasVenezolanos
  - VisaALosVenecos
  - FueraVenecos
  - NoMasVenecos
  - NoEsInmigracionEsInvasion
  - FueraInmigrantesIlegales
  - VenecoEsSicariato

Twitter query cont:
- Place indicator
  - (colombia OR place_country:CO)
  - (chile OR place_country:CL)
- Language indicator
  - lang:es
- Date filter
  - 2016-01-01 to 2022-07-01
Beginning of term use corresponds to increase in arrival of migrants

The number of Venezuelans in Colombia doubled in less than four months, from 300,000 in June 2017 to 660,000 in the end of November 2017.

The number of Venezuelans in Chile grew from 83,000 in 2017 to 289,000 in 2018, and further to 455,000 in 2019.
Negative sentiment towards Venezuelans is communicated differently across countries.

**Colombia**
- Hashtags are more general
- Most hate speech communicated outside of hashtag network

**Chile**
- Hashtags contain negative sentiment
- Tied to specific events

@isabellefv_  Website: isabellevaldes.github.io
Sentiment analysis with PySentimiento

### Positive

Acabo de ver a Sumito Estevez en mega, y me sentí tan orgulloso de ser veneco. Sumito es como un enciclopedia cultural venezolano con un acero intelectual internacional. No puedo irme de Chile sin visitar su restaurante.

6:12 PM · Jun 28, 2022 from La Florida, Chile · Twitter for Android

1 Like

### Neutral

Chile: Hoy Viernes 11-Feb, siendo las 15:45h #NoEsInmigracionEsINVASION es Trending Topic con 23.8K Tweets.

10:45 AM · Feb 11, 2022 · Twitter Web App

78 Retweets 5 Quote Tweets 90 Likes

### Negative

¿No se han dado cuenta qué desde qué llegaron los venecos a Colombia todo es más mierda?

6:53 AM · Oct 28, 2020 · Twitter for iPhone

7 Retweets 1 Quote Tweet 83 Likes
Hate-speech analysis with PySentimiento

Hateful

In 30 years Venezuela had not had such a low percentage of crime and murder, do you know why? Maduro's hdp sent the criminals to Chile, #NoEsInmigracionEsINVASION

Targeted

¡Fuera de COLOMBIA venecos comunista!
@JUANCATANUS
Get out of COLOMBIA communist poison!
@JUANCATANUS

Aggressive

COLOMBIA REQUIERE UNA LIMPIEZA SOCIAL DE VENECOS, ESTAMOS MAMADOS DEL DESANGRE DE NUESTRO PAÍS EN TODOS LOS CAMPOS,PERO MUY EN ESPECIAL EN SEGURIDAD Y SALUD, A COLOMBIA TAN SOLO HAN LLEGADO RATAS Y PROSTITUTAS......FUERA VENEZOLANOS DE COLOMBIA......A EXIGIR A SU PAÍS

Translated from Spanish by Google

COLOMBIA REQUIRES A SOCIAL CLEANSING OF VENECOS, WE ARE SUCKED BY THE BLEEDING OF OUR COUNTRY IN ALL FIELDS, BUT ESPECIALLY IN HEALTH AND SAFETY, ONLY RATS AND PROSTITUTES HAVE ARRIVED IN COLOMBIA......OUTSIDE VENEZUELAN FROM COLOMBIA. ....TO DEMAND YOUR COUNTRY

Translated from Spanish by Google
How do the cultural differences of Colombia and Chilean disinformation networks reflect the limitations of sentiment analysis algorithms?
Sentiment analysis results for Colombia

<table>
<thead>
<tr>
<th>Sentiment</th>
<th>Proportion of Tweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>0.007</td>
</tr>
<tr>
<td>Neutral</td>
<td>0.256</td>
</tr>
<tr>
<td>Negative</td>
<td>0.747</td>
</tr>
</tbody>
</table>
But the PySentimiento algorithm is not totally accurate

Both of these tweets had some of the highest numbers of retweets on November 23, contributing to a large spike in negative sentiment
**Conclusion:** Social media use is significantly different across countries, so our disinformation research must be, too.

- Emergence of negative sentiment towards Venezuelans correlate with the arrival of migrants in one’s own country, not the beginning of the global crisis itself.
- Chile: Widely used hashtags proliferate hate speech
- Colombia: Usage of slurs signal hate speech
- We need more nuanced approaches to disinformation research
  - Better variety in Spanish language sentiment-analysis algorithms
    - Tweets that *counteract* disinformation/hate-speech were flagged as negative and/or hate speech
    - PySentimiento model, roBERTuito trained with 500 mil tweets, but no country distinction.
  - Hate speech, disinformation or both?