

USING SOCIAL MEDIA TO MEASURE POLITICAL
POLARIZATION; A TWITTER ANALYSIS OF DONALD TRUMP'S
FIRST 40 DAYS IN OFFICE

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Doctoral Dissertation Abstract
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政治的分極化を測定するツールとしてのソーシャルメディア
—ドナルド・トランプ大統領就任後40日間のツイッター分析—

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Political polarization has long been a major research topic in the field of American politics. Political polarization refers to the extent of distance between political attitudes. Political polarization could be measured by identity-related parameters such as social class, ethnicity, religion and gender as well as ideology-related parameters such as party affiliation, and ideological self-identification. This dichotomy appears on both mass level and elite level to different extents in American politics. Also, political polarization might shrink and widen over time.

It is a premise of this research that understanding of political polarization in the United States requires the study of political developments in social media. However, given the current fast flow of information all over the globe, short-term study of political polarization is also important. The understanding of short-term changes in political polarization necessitates attention to new sources of data that could provide researchers with information about what actors think and do as time goes by. Therefore, externally to the prevalent sources of information, online social networks contain valuable data to identify the actors involved and the impact they make on political process. Online social networks create a new arena for political interaction and participation. This new arena provides individuals with relatively similar chances to express themselves regardless of their class, education, ethnicity, and other demographic attributes.

This thesis adds to the literature on using social media data for analyzing political polarization. The current research investigates the reflection of American political polarization on Twitter platform. In this regards, perspectives from political polarization

in the United States during Donald Trump's first 40 days in office is examined. This research aims to find out the extent to which supporters and critics tend to issue-specific reasoning and base their political judgment on their personal awareness of issues. It is because measuring ideological/issue-specific judgments is at the core political polarization studies. In other words, they might disapprove of their favorite party or politician's approach on a certain issue despite their generally positive attitude towards it/him/her. On the other hand, if they hold their general political attitudes without referring to particular topics, they are more ideological in their judgment. In this case, political polarization is ideological.

So, the main research question is:

To what extent do Trump supporters and critics tend to issue-specific reasoning?

I expect the results to show that Trump supporters and critics hardly tend to issue-specific reasoning. However, I also expect the results to show different patterns of the users' attentions towards different political topics. Consequently, the following questions must be answered over the course of this research:

- 1 What political topics were most frequently discussed during President Trump's first 40 days in office?
- 2 How were users polarized according to their attitude towards President Donald Trump?
- 3 How were users polarized according to their agreement or disagreement about Trump's position on each topic?

Chapter 2 consists of an explanation of recent developments in American social and political trends prior to Trump's victory in 2016 election. First, a few scholarly assessments of Trump's popularity and victory are reviewed. Second, Barack Obama's legacy in the economy, foreign policy, health care, the environment, immigration, and LGBT are explained to show what Trump criticized during his campaign. In this chapter, I argue that Obama's economic policy was affected by the Great Recession. The Obama administration had to tackle the negative economic growth caused by the Great Recession. However, the Obama administration's attention to large industries and its regulatory mechanisms caused dissatisfaction with small businesses. Obama's reforms in the area of human rights and civil rights, including homosexuality and abortion, raised concerns among whites and middle-aged people. On the other hand, the emergence of ISIS cause many Americans to question Obama's diplomacy-oriented foreign policy. There were also protests against costly programs such as health insurance and environmental protection. Obama's foreign policy approval declined sharply as tensions in the Middle East grew and talks with Iran were in progress. Later, Donald Trump's criticism of Obama's record is discussed to show how he managed to present himself as a potential President. He explicitly and harshly criticized Obama for mismanaging the economy, international free trade, health care insurance, immigration and energy. He managed to attract some voters who were unhappy with Obama's reforms. This chapter concludes by briefly introducing Trump's unprecedented political positions as a presidential candidate, because that is what makes him a curious case for research.

Chapter 3 sets out the usefulness of social media for political analysis. The relationship between social media and politics is explained regarding political communication, power, and political journalism because they are closely bound to social media data. More importantly, previous theoretical and empirical literature on political polarization is described. This chapter concludes by explaining the research approach towards political polarization. Despite the opportunity social media provide for political participation and awareness, it is important to realize to what extent people base their political judgment on personal awareness of issues rather ideology because measuring ideological judgments is at the core political polarization studies. This research concerns issue-oriented political polarization on Twitter. It aims to find out the extent to which Trump supporters and critics tend to issue-specific reasoning. In order to measure politically active users' political judgments, their attitudes towards Trump and his approaches on the most frequently discussed issues during his first 40 days in office are measured. I want to find out whether they ever base their judgment outside their general attitude towards Trump or at least tend to be specific about their judgment. In other words, they might disapprove of their favorite party or politician's approach on a certain issue despite their generally positive attitude towards it/him/her. On the other hand, if they hold their general political attitudes without referring to particular topics, they are more ideological in their judgment. In general, the more ideological their political judgments be, the more ideological the political polarization is.

Chapter 4 opens with introducing classification methods in social sciences. The topic classification method in this research is introduced. This method is mainly based on hashtag classification and to some extent inspired by the work of Pearce et al. (2014) on

topic classification using hashtags. The method employed to classify hashtags is explained too. This chapter gives details of how Twitter data was collected and cleaned. The data was collected through the Twitter REST API. I explain that I classify hashtags by political topics and the political attitudes that they imply. Next, I use hashtags sent by users to classify them according to their attitude towards Trump, and their attitudes towards Trump's approaches on those topics. This method can contribute to understanding of the extent to which people examine Trump just by ideology or personal awareness of his approach towards each issue.

Chapter 5 includes the data analysis. The method introduced in chapter 4 is used to explain the trending political topics including foreign affairs, immigration, environmental issues, the Trump administration's relations with Russian government officials and civil affairs. I also show the proportion of pro- and anti-Trump, and neutral hashtags for each topic. This is necessary to classify users' attitudes. Next, users are classified based on their attitudes towards Trump and their attitudes towards Trump's approaches on those topics. The results show that most users examine Trump just by ideology rather than personal awareness of his approach towards each issue.

The conclusion answers the research questions and discusses the limitations of the data and methods. To conclude the analysis, I briefly recall the most frequently discussed topics. Next, I show what aspects of those topic anti-Trump and pro-Trump users tend to the most and explain their point of view. Also, I provide proof from previous chapters to show that users are more likely to observe political issues through an ideological point of view rather than personal awareness. This, in fact implies that political polarization in the United States is very ideological. The chapter ends with suggestions for future research.

CHAPTER 1: Introduction

- 1.1 Background
- 1.2 Problem Definition
- 1.3 Research Questions
- 1.4 Significance
- 1.5 Research Structure

CHAPTER 2: Recent Social and Political Trends in the United States; 2008-2016

- 2.1 Scholarly Examinations of Donald Trump's Popularity
- 2.2 Barack Obama's Legacy as US President
 - 2.2.1 The Economy
 - 2.2.2 Foreign policy
 - 2.2.3 Health Care
 - 2.2.4 The Environment and Energy
 - 2.2.5 Immigration
 - 2.2.6 LGBT
- 2.3 Donald Trump's Approaches
 - 2.3.1 The Economy
 - 2.3.2 Foreign Policy
 - 2.3.3 Health Care
 - 2.3.4 The Environment and Energy
 - 2.3.5 Immigration
- 2.4 Chapter Summary

CHAPTER 3: Social Media and Politics

- 3.1 What is social media?
 - 3.1.1 Why Twitter Research?
- 3.2 Social Media and Political thought
 - 3.2.1 Political Communication and Social Media
 - 3.2.2 Power, Hegemony, and Social Media

3.2.3 Political Journalism

3.3 Political Polarization

3.3.1 Definitions and Discourses

3.3.2 Ideology-driven Polarization

3.3.3 Identity-driven Polarization

3.3.4 Economy-driven Polarization

3.3.5 Measuring Political Polarization in Social Media

3.4 Chapter Summary

CHAPTER 4: Method and Data

4.1 Research Approach

4.1.1 Conversational community detection

4.1.2 Content classification

4.1.3 Contribution of this method to political polarization studies

4.2 Topic classification in social sciences

4.3 Topic classification according to hashtags

4.4 Data Collection Process

4.4.1 Data collection problems

4.5 Data Cleaning

4.6 Chapter Summary

CHAPTER 5: Discussion and Results

5.1 Introduction

5.1 Hashtag Coding According to Topics and Attitudes

5.2.1 Hashtags related to foreign affairs

5.2.2 Hashtags related to immigration

5.2.3 Hashtags related to relations with Russia

5.2.4 Hashtags related to civil affairs

5.2.5 Hashtags related to environmental issues

5.2.6 Proportion of anti-, pro-, and neutral hashtags for the five topics

5.3 User Classification According to Attitude Hashtags

CONCLUSION

BIBLIOGRAPHY

