



SCHOOL OF COMPUTATION,
INFORMATION AND TECHNOLOGY —
INFORMATICS

TECHNICAL UNIVERSITY OF MUNICH

Bachelor's Thesis in Informatics in Informatics

**From Hashtags to Ballot Boxes: A Close
Look at the 2023 Turkish Election**

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**Von Hashtags zu Wahlentscheidungen: Ein
umfassender Blick auf die Türkischen
Wahlen 2023**

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I confirm that this bachelor's thesis in informatics is my own work and I have documented all sources and material used.

Munich, 15.03.2023

Efe Sener

Acknowledgments

Abstract

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1 Introduction

In recent years, governments and the public have realized the importance of social media, especially Twitter, which has a decisive role in mobilizing social and political activism (Uysal & Schroeder, 2019). Twitter has been instrumental in studying human behavior with social media data (Pfeffer, Matter, Jaidka, et al., 2023), described as a digital social telescope by researchers in the social science field (Mejova, Weber, & Macy, 2015). It has provided a somewhat free environment and guided social and political debates to gain new dimensions (Yerlikaya & Toker, 2020), where individual users can directly and publicly address comments to their representatives under conditions of anonymity (Theocharis, Barberá, Fazekas, & Popa, 2020). The robust rise in Twitter's popularity has stemmed from increasing accessibility to technology and affordability. Millions of people consume news from social media sites like Twitter (Anwar, Ilyas, Yaqub, & Zaman, 2021). In Turkey's case, Twitter began to be taken seriously after the unrest in the Middle East, especially after the Gezi Park protests in 2013 (Zaharna & Uysal, 2016), where Twitter was one of the most valuable media for protestor communication, given censorship (Ogan & Varol, 2017).

This thesis aims to analyze the Twitter data, provided by Sabanci University (Najafi, Mugurtay, Demirci, et al., 2022), to understand the Turkish Twitter discourse surrounding the May 2023 elections. Using innovative topic modeling techniques, this thesis will discover the most prevalent topics in Turkish Twitter between July 2022 and June 2023. Topic modeling on Turkish Twitter data has not been done before,

In this chapter, the thesis starts by explaining the historical context and then continues to present the current political landscape. It demonstrates the importance of the May 2023 elections, emphasizes the significance of Twitter in Turkish politics, and deep dives into research questions. In the next chapter, the thesis examines various related works, asking similar questions and analyzing their results. After that, the thesis explains the Twitter dataset and used methodologies while collecting and analyzing the data. Next, the thesis deep dives into the analysis results, and later discusses the findings by interpreting them, highlighting both the limitations and future work. The final section summarizes the results and its implications.

1.1 Background

It is crucial to examine Turkey's historical political context to understand the complex political landscape and the May 2023 elections.

After the collapse of the Ottoman Empire, the Turkish Republic was declared in 1923. Some attempts were made, but the first multi-party elections were held in 1946. Until 1945, the Republican People's Party (CHP) was the only party in the parliament, and until 1950 it was the ruling party. The CHP was founded by Mustafa Kemal Atatürk, also the founder of the Turkish Republic.

With a multi-party system in a young republic, political power was now open to various groups. Different and new ideologies arose and started to organize politically (Rabasa & Larrabee, 2008). The military saw their role as the protector of the Republic and Atatürk's ideologies and overthrew the governments in 1960, 1971, and 1980. The 1980 military coup, which introduced a new constitution, was after a period of political fragmentation and civil instability in the 1970s.

During the 1970s, political Islamism started to emerge, which challenged the secularist nationalism and modernization ideologies of the CHP (Yilmaz & Bashirov, 2018). Changes in the political structure, the constitution, and civil liberties, major economic crises in 1994 and 2001 (Ardan, 2023) contributed to Islamic political groups' political influence and strength, to the emergence of new political players and parties like the Justice and Development Party (AKP) (Rabasa & Larrabee, 2008).

Since 2002, AKP has been in power in Turkey. Out of 15 elections, AKP just lost the local elections in 2019, in which the opposition party CHP won more than four significant municipalities. Especially in Istanbul, the opposition won twice because the first election was canceled. For the May 2023 elections, the main opposition coalition was established from CHP, **IYI (IYI)**, Felicity Party (SAADET), and Democrat Party (DP), and two new parties were established out of AKP: Democracy and Progress Party (DEVA) and Future Party (GP) (Atila, 2022). Even though most of the polls favored the opposition in the May 2023 elections (Saç & Çoban, 2023), AKP has the majority of the parliament and Recep Tayyip Erdogan was elected in the kickoff elections for the third time as president, after serving two terms as president and two terms as prime minister since 2003.

1.2 Research Questions

This chapter introduces the research questions guiding this thesis, which are based on qualitative methods to analyze the Twitter discourse surrounding the May 2023 elections in Turkey.

The research questions are divided into two parts. The first part will cover the main research objective of this thesis, which is the analysis of the topic modeling results. The first question is as follows: “What were the most prevalent topics in Turkish Twitter discussions during the May 2023 elections?”. This question is necessary to understand the main topics of the May 2023 elections discussed in social media.

The next question is “How do real-life events during the election period correlate with shifts in discussion topics on Twitter, and in what ways do these shifts mirror political movements?”. This question focuses on the reflection of real-life events and political movements in Twitter discussions.

The third question is about parties and their election agendas: “How do the Twitter discussions about the ruling party and the opposition during the election lead-up reflect and compare to their respective election agendas and public statements?”. This question is essential to understand the reflection of the election agendas of the parties and the differences between them on Twitter.

With these questions in mind, the second part of the research questions covers the comparison of the results of the topic modeling with other research, where a similar approach was used for different countries. The main question is as follows: “How do the key themes, content, and engagement levels in the Turkish Twitter discourse surrounding the May 2023 elections compare with those observed in the past elections in other countries?”.

2 Research Questions

3 Related Work

3.1 Section

4 Experiments

4.1 Section

Citation test (Lamport, 1994).

5 Results

5.1 Section

Citation test (Lamport, 1994).

6 Discussion

6.1 Section

Citation test (Lamport, 1994).

7 Conclusion

7.1 Section

Citation test (Lamport, 1994).

Acronyms must be added in `main.tex` and are referenced using macros. The first occurrence is automatically replaced with the long version of the acronym, while all subsequent usages use the abbreviation.

E.g. `\ac{TUM}`, `\ac{TUM}` \Rightarrow Technical University of Munich (TUM), TUM

For more details, see the documentation of the acronym package¹.

7.1.1 Subsection

See Table 7.1, Figure 7.1, Figure 7.2, Figure 7.3.

Table 7.1: An example for a simple table.

A	B	C	D
1	2	1	2
2	3	2	3

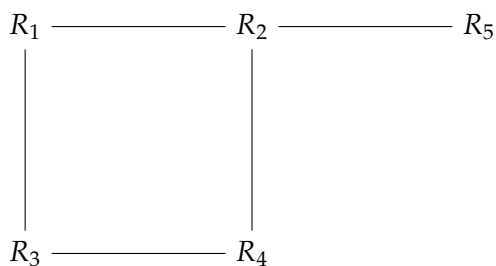


Figure 7.1: An example for a simple drawing.

¹<https://ctan.org/pkg/acronym>



Figure 7.2: An example for a simple plot.

```
SELECT * FROM tbl WHERE tbl.str = "str"
```

Figure 7.3: An example for a source code listing.

Abbreviations

TUM Technical University of Munich

CHP Republican People's Party

AKP Justice and Development Party

DEVA Democracy and Progress Party

SAADET Felicity Party

DP Democrat Party

DEVA Democracy and Progress Party

GP Future Party

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