



Technisch-Naturwissenschaftliche  
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# **Austrian Parliament Analyzer**

zur Erlangung des akademischen Grades

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im Bachelorstudium

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# Affidavit

I hereby declare that the following dissertation "Put your thesis title here" has been written only by the undersigned and without any assistance from third parties.

Furthermore, I confirm that no sources have been used in the preparation of this thesis other than those indicated in the thesis itself.

Linz, on October 25, 2015

Markus Hiesmair

# Acknowledgment

# Summary

Summary ...

# Abstract

Abstract ...

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# Abbreviations

**CAB** Compute Aggregate Broadcast (A computing model in parallel computing where computation is strictly partitioned in the three phases compute, aggregate and broadcast)

**IaaS** Infrastructure as a Service (Cloud computing service layer)

**JSF** Java Server Faces (Web technology in the arena of Java enterprise)

**JSP** Java Server Pages (Web technology available in Java Servlet containers)

**MPI** Message Passing Interface (Standard for implementing parallel algorithms on shared-nothing infrastructures)

**OSN** Online Social Network (An usually web-based online platform where friends, and acquaintances can connect and share information)

**PaaS** Platform as a Service (Cloud computing service layer)

**SaaS** Software as a Service (Cloud computing service layer)

**UML** Unified Modeling Language

**URL** Uniform Resource Locator

**VM** Virtual Machine

**WAR** Web Application Archive

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## Chapter 1

# Introduction

One of the most crucial requirements of a democracy is transparency. There are several ways how one can gain information about the current and past political activities in Austria. One of the best possibilities among them are the publicly available protocols of the national council sessions. In these protocols every word said in a session is written down and that makes up the corresponding protocol. Unfortunately, these protocols are very long and it is hard to gain meaning out of it, because of its plain and simple structure and the great amount of data.

To be able to analyze and visualize the activities and relations of the politicians and parties in a better way, during this thesis the protocols are being extracted, transformed, analyzed and visualized.

### 1.1 Research Goals

The protocols are currently available in semi-structured form - through HTML files. To be able to properly persist and analyze the data, the protocols have to be transformed into a fully structured form (e.g. Java Objects). The following elements will be extracted:

- Legislative periods and their sessions
- Politicians and their mandates
- Parliament clubs
- Discussions and speeches during the sessions

As soon as this is done, the extracted data should be persisted into a arbitrary relational database. Furthermore, some general and network analysis should be done on the data. The following list includes some of the analysis.

- Create a network graph which shows the relations among politicians and parliament clubs.
- Find groups of politicians (or parliament clubs) with the same attitudes.
- Analyze how homogeneous the attitudes of politicians of the same parliament club are.
- Find the politicians which take part in the most discussions.
- Find the most absent national council members.

In the final step the results should be visualized via a web application. The focus hereby lies in making the results as easy to understand as possible.

## 1.2 Austrian Parliament

In this section there will be a short overview over the activities and tasks of the Austrian parliament, so that in the following sections the basic process will be clear.

The parliament basically consists of two chambers, the national council and the federal council. The national council is elected through federal elections, whereas the federal council consists of delegates of the 9 provinces. Both chambers have different functions and their goal is to ensure that the decisions are in the best interest for the Austrian people.

### 1.2.1 National Council

The national council consists of 183 members, which can band together to form so called parliamentary clubs. Usually for each political party, which got elected in the national council, there is one parliamentary club, but that is no necessity. The tasks of the national council include law-making, controlling the government, seeking solutions for current problems, determining the budget and much more.

### **1.2.2 Federal Council**

The federal council consists of 61 members. As the members are delegates of the provinces, their main duty is to represent their province and make sure the politics in the parliament are in the interest the province they represent. To do so, they can raise objections against legislation of the national council, but most of the time the federal council only has the power to delay legislation and not to prevent it.

## **Chapter 2**

# **Related Work**

## **Chapter 3**

# **Reference Implementation of the Distributed Processing Framework**

This is a chapter that references other chapters ??

## **Chapter 4**

# **Results and Discussion**

## **Chapter 5**

# **Conclusions and Future Work**



# Bibliography

- [1] Austrian Parliament. *The Austrian Parliament*, 2015. <http://www.parlament.gv.at/ENGL/PERK/PARL/>.