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DEPARTMENT OF INFORMATION AND
COMMUNICATION SYSTEMS ENGINEERING**

**Analysis and Classification of Social Media Platforms'
Activities and Content for Policy Making**

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Abstract

Over the last few years, Social Media experienced a rapid shift from pure web-based sites to large and ubiquitous interactive communication platforms. These platforms allow the creation of nodes of individuals, groups, organizations and systems that are related with each other. Companies, governments and organizations have understood the essential role of Social Media and try to use them in an effective way.

Due to the fact that Social Media exchange a variance of information that includes a high percentage of users' opinions about issues that concern them, innovative tools are offered by Information & Communication Technologies to help societies create new channels of communication between citizens, politicians and public administration.

In this study, we analyze and classify the activities and the content of social media platforms for policy making in order to find the general sentiment through Sentiment Analysis. To succeed this, we choose a momentous political issue for Greece, entitled "Government reformation or election in 2012 in Greece". Then we collect 158 comments from 24 related to the selected political issue themes from the 4 most popular Social Media Platforms (Facebook, Twitter, YouTube and Blogs).

In order to find the feeling of the collected comments and to decide if the comments' opinion is positive, negative or neutral, we create a new Sentiment Analysis methodology especially for the Greek language. Our proposed methodology is basically inspired from the Boolean Algebra and the Modern Greek Grammar.

According to our methodology, each word is translated into a Value in order to be analyzed via Sentiment Analysis. To assign the word into Values we create 6 Ground Rules of Opinion based on the Modern Greek Grammar. As Values we consider +1 for positive orientation, -1 for negative orientation, 0 for neutral orientation and 1 negation . Moreover, we create a truth table named as a Table of Values. This table is responsible for determining the outcome orientation between two words. In this way, it is possible to find sentiment of a sentence, paragraph or document. Based on the 6 Ground Rules of Opinion we conduct Sentiment Analysis to our collected data and we create 8 more General Rules of Opinion, which are either new ones or supplementary to Ground ones.

Concluding, most of the comments' orientation was negative. This lies on the fact that, due to the current situation of our country and the economic crisis, the citizens are not happy with the politicians and the way they act in order to save our country from bankruptcy. It is obvious that citizens need a change and an immediate and direct solution of this situation.

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List of Abbreviations and Acronyms

Information and Communication Technologies	(ICT)
Search Engine Optimization	(SEO)
Social Networking Sites	(SNS)
Civil Society Organizations	(CSOs)
Natural Language Processing	(NLP)
Geo Information Systems	(GIO)
Spatial Data Infrastructures	(SDI)
Social Network Analysis	(SNA)
Natural Processing Language	(NLP)
Support Vector Machines	(SVMs)

1 Introduction

It is believed that the world till today has faced a great phenomenon which is the rise of Internet. It holds a special position among other inventions because of the rapidity of its penetration. Telephone took 74 years to penetrate in 50 million people while Internet needed only 4 years for the same proportion of persons. For many people, Internet is an open source of information and its continuing penetration will allow people express their opinion and becoming more interactive, bringing democracy worldwide. (Schuler, 2001)

Currently, we are in front of the revolution of Information and Communication Technologies (ICTs). Most countries are aware that the increasing use of information through data extraction and the proper use of ICT are essential tools to serve a common purpose. Their aim, therefore, is to encourage citizens to participate in public policy and decision making concerning the proper management of the country in which they live. (A. Macintosh and S. Coleman, 2003)

An essential prerequisite for effective participation of citizens in common is access to information, consultation and the establishment of a parallel relationship between government and society. (A. Macintosh and S. Coleman, 2003) The use of innovative tools offered by ICT, help one achieve this directly, affecting all societies and creating new channels of communication between citizens, politicians and public administration. (Loukis et al., 2007)

The active participation of citizens in the public sphere is an essential factor in good governance of a country. To ensure that this happens, citizens must enjoy equal rights of participation. Through the use of new tools of ICTs, citizens - users of Internet are provided with new opportunities and experiences, new dynamics and limits they are not aware that they could even touch. (A. Macintosh and S. Coleman, 2003)

The emergence of the Internet resulted in the rapid development of a new kind of technology which we define as a means of social networking. This term includes the use of tools such as social networking sites, blogs, message forums, wikis and media-sharing sites. (Kes-Erkul and Erkul, 2009) The use of these instruments offered new possibilities for improved and

more direct connection between users. The greater the use, the more penetrating everyday lives become. (FGNE, 2010)

They are also well known as social media and the important thing about them is that people have the ability to create content, share it and bookmark it. Facebook (Facebook, 2011), Twitter (Twitter, 2012), YouTube (YouTube, 2011), LinkedIn (LinkedIn, 2011), Flickr (Flickr, 2011), MySpace (Myspace, 2011), Delicious (Delicious, 2011), Digg (Digg, 2011), Blogger (Blogger, 2011), Wordpress (Wordpress, 2011), Picasa (Picasa, 2011), Ustream (Ustream, 2011) are some examples. They have an amount of user generated content and can be used simply to collect exchange or publish information, engage discussions and form communities or small groups on the Internet, as well. (Joshi et al., 2007)

Many companies, governments and organizations have understood their essential role and are trying to use them in an effective way. More specifically, the last decade, the use of social media has increased significantly for political purposes. There are many political parties and their leaders who use them for their political campaigns and for attracting users-future voters. The high variance of information exchanged in social media includes a high percentage of users' opinions about issues that concern them. (Asur and Huberman, 2010) In our study, we will try to predict future trends or specific outcomes from measuring the public opinion through text analysis and sentiment analysis.

1.1 Aims & Objectives

This master thesis aims to analyze and classify the activities and the content of social media platforms for policy making. Indeed, this thesis focuses on collecting the content from social media, making opinion mining through the content, measuring public opinion through text analysis and sentiment analysis and last making general rules based on political content.

The main objectives of this study (of equal priority) can be summarized as follows:

- Review the underlying literature on Sentiment Analysis of Content from Social Media Platforms for Policy Making, in order to determine the current state of the art.

- Select which Social Media Platforms will be used in this study.
- Select a political issue for which data will be collected.
- Data Collection for a specific issue from the selected social media by hand.
- Creation of Ground Rules of Opinion based on Modern Greek Grammar.
- Sentiment Analysis on the collected data set of political content.
- Creation of General Rules of Opinion based on the combination of Ground Rules of Opinion and the Sentiment Analysis of the political content.

1.2 Thesis Structure

The master thesis addresses the aforementioned objectives in order and is comprised of the following Chapters.

Chapter 2 outlines the theoretical background of Social Media and Policy Making. It begins with an overview of certain definitions in order to analyze in the next chapter these that we will focus on more. We introduce not only a general clue of these definitions but also what their combinations offer to citizens - Internet users.

Chapter 3 provides an exhaustive literature search of previously studies. Specifically, it includes the background of Content Analysis as well as of Sentiment Analysis and Subjectivity. Furthermore, it includes the main studies that have taken place making sentiment analysis on a variety of content using different techniques, methods and tools. In the conclusion of the chapter we present a map in which we show where the directions of the other studies are pointed and where we are heading now.

Chapter 4 presents the methodology used for this study. Each step of the specific methodology is described with details in each subchapter. Here, we describe the mechanism that we will use to make the Sentiment Analysis in the next chapter and we create the Ground

Rules of Opinion based on Modern Greek Grammar. These rules will be used as methodology in order to create the General Rules of Opinion in chapter 5. In the conclusion of the chapter we depict the basic steps of methodology in a flowchart.

Chapter 5 contains the sentiment analysis of the political content from the selected social media. More specifically, in this stage we will find if every authors' view expresses an opinion or not and then if he or she does so, whether the opinion is positive, neutral or negative. In this Chapter, we analyze which is the political issue that we are interested in, we find with the use of some tools, the most popular users or groups in Facebook, Twitter, YouTube and Blogs, we extract from these platforms the comments that refer to the political issue and then we make the Sentiment Analysis. After that, we create the General Rules and we offer some statistical results about them.

Chapter 6 covers the evaluation stage of the research project and presents the main conclusion arising from the entire study, highlighting the principle achievements and limitations of the work, along with suggestions for potential further improvement.

The master thesis also includes the References and Appendices, which contain a summary of the sentiment analysis on authors' comments.

2 Theoretical Background

2.1 Introduction

This Chapter outlines the theoretical background of Social Media and Policy Making. More specifically, begins with an overview of certain definitions in order to analyze in the next chapter these that we will focus on more. We introduce not only a general clue of these definitions but also what their combinations offer to citizens - Internet users.

2.2 E-Democracy

E-democracy can be defined as the use of ICT in the policy-making and decision-making process so that a direct and more active participation of citizens takes place. Other terms that can be used are digital democracy, teledemocracy and cyberdemocracy. There are many people that confuse e-democracy with e-government. E-government is the use of ICT in order to increase citizens' participation in the political process. In other words, e-government refers to top-down practices in contrast to e-democracy that refers to bottom-up activities. Citizens who wish to contribute to the political process can use also the Internet as the interaction platform and its interactivity is what makes it different from media such as television, radio, newspapers. The kernel of e-government will always be political participation. (Breindl and Francq, 2008)

2.2.1 Information

The use of Internet is multidimensional. It is used from a person in order to get informed but also in order to inform other people and communicate with them at any time whenever he likes and from anywhere. One of the characteristics that it has is the large amount of information that can be exchanged through a network. Many users have the opportunity to access to information with political content and express their opinions on different issues as well. Information alone does not lead to citizens' participation. (Breindl and Francq, 2008)

2.2.2 Discussion

Online political discussion can take place in forums, blogs and online chats with politicians. Some sites where political discussions take place in order to increase their rank and achieve a higher place in a Google search are trying to influence their ranking so that the users prefer their site or forum to create a political discussion. This approach is called Search Engine Optimization (SEO). (Breindl and Francq, 2008)

2.2.3 Decision-making and participation

Decision-making and participation can be defined as the ability of citizens to participate directly and more actively in the political process using all the information needed, making discussion on political issues and taking decision that will influence the final outcome. We can refer some examples as online consultations, opinion polling, and electronic voting. Today, many politicians believe that Internet users are not only consumers but are citizens as well and can play an essential role in the political decisions of the government if necessary. (Breindl and Francq, 2008)

2.3 Web 2.0

Although the term Web 2.0 has many definitions, it includes the use of tools such as Blogs and Wikis, social bookmarking applications and social networking sites. Using the Web 2.0, Internet users have the ability to add comments, upload files and interact with web-based content. (Kes-Erkul and Erkul, 2009)

2.3.1 Blogs and Wikis

Blogs and Wikipedia are the most famous examples of Web 2.0 applications. In blogs (or Weblogs), any user is able to publish whatever content he wants to share with others. (Blood, 2002) Wikis are websites in which any user can create manuals or encyclopedias. (Breindl and Francq, 2008)

2.3.2 Social Bookmarking Applications

These applications can be used for human indexing. More specifically, when users upload a video or a photo, they usually comment or describe the content of the video or the picture using some keywords called tags. Examples of these applications are YouTube, Flickr and Delicious. (Breindl Y. and Francq P., 2008)

2.3.3 Social Networking Sites

These sites are used by users in order to connect with others that have the same interests, interact, upload videos or pictures, share multimedia content, make some comments and create profiles. Examples of SNS can be referred as Facebook, Twitter and LinkedIn. (Breindl and Francq, 2008). SNS are also web-based services and reflect offline relationships. They are also used in order to promote e-participation because they encourage citizens to get

involved, they facilitate viral marketing and they keep people interested through regular changes and updates in profiles strengthening relationships. (Taylor-Smith and Linder, 2009)

It is observed that social networking sites are used politically much more during election times. Moreover, users during this period prefer to check the candidate positions and profiles rather than join a political discussion. However, it is also possible that citizens who are more informed about political issues get more confused leading away from participation. (Polat, 2005)

2.4 Web 2.0 and E-democracy

Globally, democracy is a tool that has lost much of its effectiveness. It is time to use the new digital media and reform the old ones in order to ensure that democracy is still viable. (Schuler, 2001)

It is observed that more and more Internet users search in the web about blogs or forums or sites where people communicate about politics. Conversations can be made between citizens who have no relation to politics but also between professional political journalists and politicians. Everyone can express his opinion.

As a result of online political discussions, there is a trend of creating political networks on the Internet. People need not only to take place in a discussion but also participate in the political decisions of the government. This phenomenon is obvious in the Internet from the political discussions and the political actions of users in the social networking platforms that they use. (Breindl and Francq, 2008)

2.5 Social Media and Decision-Making Process

Social media platform can be defined as a group of Internet-based applications that are built on the ideological and technological foundations of Web 2.0 and allows the creation of nodes of individuals, groups, organizations and systems that are related with each other. Also, it focuses on the structure of relationships and the flows of data, information and knowledge.

In a social network people are able to use content to find other people and information. (Serrat, 2009)

It is true that we cannot compare our government as a perfect network. In order our society to acquire sustainability has to reform the decision-making process. Government needs to push citizens become more active, take part in political activities and participate in political decisions. Participation means giving citizens the power to become social actors, to make decisions, to take control of the actions that affect their lives. There has to be a relationship of power sharing between government and citizens in order to move towards sustainable paths. (Lourenco et al., 2010)

According to a study of (Rodriguez and Steinbock, 2004), many political institutions use structures for decision-making in which the political representatives of citizens take decisions for specific issues. The outcome of this study is the creation of model which indicates that the citizens 'intention for these decisions was inversely proportional to the intention of the representatives. That's why the government needs to replace the old traditional structure models with new which adapt to the rapid changes of the society.

According to a case study (Baker, 2010) that examines an online discussion forum about politics it is presented that during the election time people participate more and the social networks gain popularity. Users that had conversations on political subjects at some points used external sources of information in order to expand the discussion.

In another survey it is observed that along with the traditional media, the new media are used as supplementary tools from users either they are citizens or politicians. Computer Bulletin Boards or else forums are used for political communication purposes. The basic features of a forum are the Messages which allow users to leave a message, read messages left by others and respond to those messages as well as Issues which interest the users. (Garramone G.et al., 1986)

According to a study (Darkoury and Birdsall, 2008), the use of traditional media offers to citizens a top-down, one way flow of information. With the use of new media such as SNSs, blogs and forums, people are able to have a horizontal, interactive personal communication through different channels, giving the ability to have all participation in public issues. Needless to say that in December 2007, the blog search engine Technorati monitored 113 million blogs. From this use, users are creating a space-less public sphere which means that

they exchange information and have dialogues about issues such as politics and government. They also express their opinions as a form of communication investigating and judging the actions of the government freely using the media of their choice. As a consequence, the amount of Internet users increases and they become more aware about their freedom of speech, the terms of privacy and the accessibility to information.

2.6 Web 2.0 and E-participation

In some countries participation of citizens is required by law. Web 2.0 offers new possibilities for participation and through the interaction and the exchange of information can make participation become a reality. The distribution of geodata derived from the use of Geo Information Systems (GIS) and Spatial Data Infrastructures (SDI), which is a new phenomenon, allows citizens and municipal administration to have access to qualified data making use of services and ensuring the interoperability. When data contain information about political issues then the users are leading to e-participation. (Blankenbach and Schaffert, 2010)

An approach from (Schellong and Girrger, 2010) concerned an analysis of e-participation and Web 2.0 in German government. Citizens believed that individual impact on policy makers was low. The identified factors that influenced the use of e-participation were the ease of use and the trust in privacy which increased the likelihood of usage. Last but not least in order to use Web 2.0 tools in a better way there should be improvement in knowledge for politics, government and e-participation, the government officials should try new models or techniques and citizens should have the opportunity to learn more about participation.

2.7 E-Participation and Policy Making

Participatory policy-making can be defined as a specific tool that is used from individuals or groups for designing policies and achieving active citizenship. The participatory process can be either top-down pushed from the government or bottom-up pushed from stakeholder groups. (Rietbergen-McCracken, 2002) There are seven different levels of policy-making in which participation is involved according to (Karl, M., 2002):

- Contribution
- Information sharing

- Consultation
- Cooperation and Consensus building
- Decision Making
- Partnership
- Empowerment

Also, there are some tools which are used in participatory policy-making (OECD, 2001):

- Information-sharing tools
- Consultation tools
- Active participation tools

According to (Macintosh, 2004), there are three levels of participation that can be used:

- E-enabling
- E-engaging
- E-empowering

These three elements indicate a scale of participation in policy-making. Figure 2-1 depicts these levels:

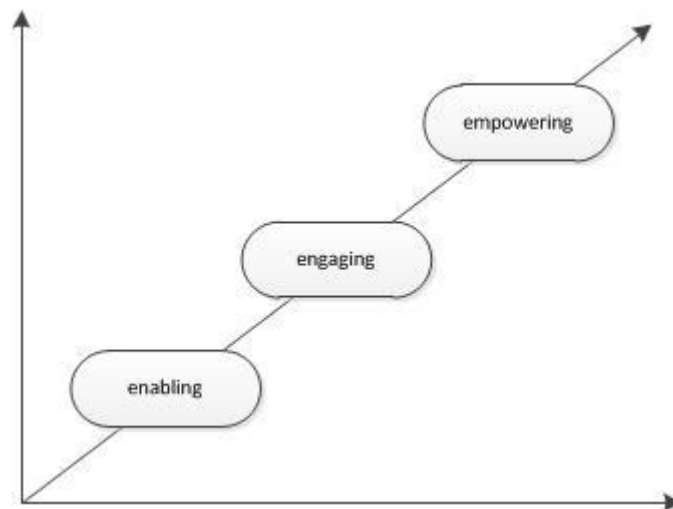


Figure 2-1 Levels of participation in policy-making (Macintosh, 2004)

The policy life-cycle includes 5 high level stages (Macintosh, 2004). Figure 2-2 depicts these level stages:

- Agenda-setting
- Analysis
- Creating the Policy
- Implementing the Policy
- Monitoring the Policy

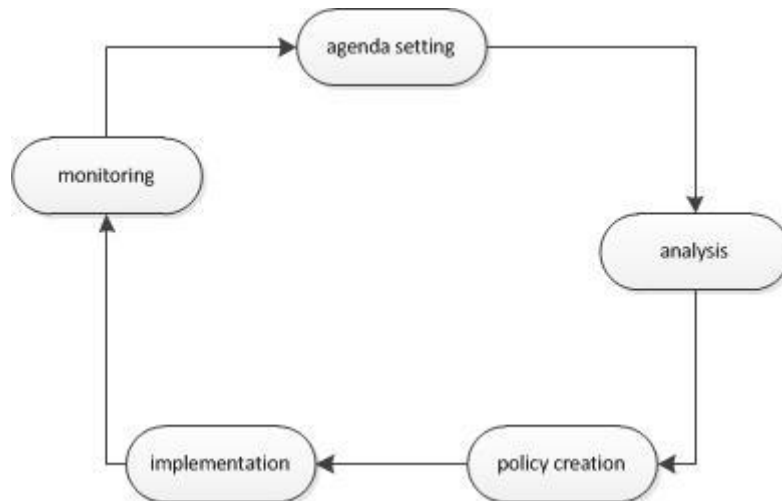


Figure 2-2 Stages of policy life-cycle (Macintosh, 2004)

In Policy Making there are also some Actors and the Technologies that are used. As for the actors they are stakeholders including decision-makers, experts, governmental ministers, elected representatives, government employees and civil society organizations (CSOs). Furthermore, as for the technology used we can refer the natural language processing (NLP) and speech technology and some techniques such as graphical representation of online debates enabling a wider audience. (Macintosh, 2004)

According to a case study (Dorsman, 2011), the author tries to understand if knowledge in social networks appears to influence or not process of risk definition the policy-making process. He defines policy-making a set of norms, rules and practices, as rules the routines, procedures, roles and strategies around which political activity is constructed and knowledge as a process of sense making or an outcome of process of sharing content between different users. Knowledge has three different forms (Van Buuren, 2006):

- Knowledge as Facts
- Subjective and Socially constructed Knowledge

- Knowledge as experience

Users of social networks are not only consuming the knowledge shared but also producing it. The outcome of this research was that knowledge produced in the social media had no influence because the actors chose not to pay attention on it.

A different approach examines if the SNS, and more specifically Facebook, create new opportunities to political participation and defines the different aspects of the term Participation. Participation includes three forms of activities: political, civic and expressive. More specifically, political participation is defined as the effect of government action directly in policy making and indirectly in those who make the policy. Civic participation is referred as the activities made in order to solve a situation and last but not least participation needs public voice with citizens expressing their views. (Valenzuela et al., 2008)

Through another case study (Sanson, 2008), Facebook is considered to be one of the most powerful tools in the new era of politics just like blogs and other SNSs. Facebook in a more detailed way, provides its users with the ability of creating a profile, uploading photos or videos, making comments, sharing information through digital mapping and communicating with other users through public or private messages. Nowadays, it is observed that young people build relationships in communities and the percentage of young voters in elections has increased. Facebook has become a platform where political candidates publicize their positions, have support from existing political groups or individuals and communicate with others trying to attract their attention and make them possible voters. Due to its technology, it offers motivation, ability and opportunity. When young people have these three elements then, they become more easily engaged in public life.

Another approach for the political use of SNSs is held in (Emruli et al., 2011) where an analysis is made for the influence of the political parties through the use of the largest and most popular SNSs to the users and at the same time voters in elections of 2008. According to the study, FYROM was a country with media technologies slow developed, Internet was not fully involved in political communication and it was not yet available to everyone and everywhere, monologue was more encouraging than dialogue and finally the content of web pages was maladjusted or incomplete. Although the problems faced, the use of SNSs and especially Facebook was intense. The results from this study showed that all political parties

with their Facebook activity gave the same results in comparison to the number of political candidates that won in the elections.

In the sphere of politics and the use of SNSs lies a study for the presidential elections held in Iran in 2009 (Khonsari et al., 2010). In order to understand concepts like the Green Movement in Iran, social networking analysis is used as an important tool. Online communities like Twitter, Facebook and YouTube are also used so that concepts like the one we mentioned can be understood as for its structure and its characteristics.

An important role plays the study of (Skoric et al., 2011) which examines the extent in which new social media and traditional media are used in Singapore specifically for a student protest against censorship. The outcome of this explore was that new media such as forums, blogs, SNSs were successfully used for the mobilization of citizens. As for the traditional media, they were used in a lower extent but they played an essential role in the protest of students as well.

From the study of (Wallsten, 2011) we learn how the new media influence the old media. More specifically, the findings presented that journalists turn to political blogs during the election times. A survey indicated that in 2004 the 84% of journalists visited a political blog in a period of 12 months and the 30% once a day regularly. One of the results of this study was that blogs have had a dramatic explosion over the last years and the number of comments and mention in the blogs has arisen in a great percentage. New media, and among them the blogs, play nowadays an important role in the policy making process and can change the dynamics of political campaigns. One thing is certain that not all political blogs have the same power to influence the press and the political orientation.

Blogs because of the fast development of technology have become the fourth network communication after Email, BBS and QQ. Some blogs represent a new living attitude and change the way people think and learn. These blogs are called knowledge blogs or else K-blogs. It is a brand-new mode of knowledge management, it focuses on knowledge reporting and communication and it provides to its users all kinds of knowledge. It also provides a place where all political parties with the same purposes and goals communicate. Last but not least, it is a management tool with different document classification methods that citizens are able to use as well as the search function. (Wang, 2011)

2.8 Social Media and E-Voting

A voting system is a set of rules that a community uses in order to take decisions. In this study (Boldi et al., 2009) a voting system for a social media platform is presented taking into consideration the missing votes. People's social connections are seen as a combination of strong ties for family and friends and weak ties for distant friends. Also, there is an opportunity to build political relationships creating a web of trust. In this system, there is a scenario where nobody expresses a preference and a second one with partial abstention of participation. For each scenario a different voting system is chosen.

2.9 Conclusion

This Chapter has introduced the basic theory about Social Media and Policy Making. This theoretical background is necessary to understand, examine and evaluate the already proposed methods, tools and techniques in literature. In addition, a good theoretical background is essential to develop an analytical research methodology.

3 Literature Review

3.1 Introduction

This Chapter provides a literature search of previously studies. We will present main studies for three specific domains. Firstly, there is a review about Content Analysis in Social Media. Secondly, we pass to a review about Sentiment analysis and Subjectivity explaining the manner in which rules are made. Finally, we close this chapter with Opinion Mining in Social Media.

3.2 Content Analysis in Social Media

According to Kassarian in 1977, Content Analysis is considered to be a research technique used for the objective, systematic and quantitative description of the content of communication. Objectivity means that during the research process each step must be done on the basis of specific rules and procedures. Systemization means that the content or the analysis of communications must be done according to applied rules. Quantification constitutes the most distinctive characteristic of content analysis and distinguishes it from ordinary critical reading. Content analysis functions as a supplementary source of data as well as a measure and is necessary when the language of the subject is essential for investigation, e.g. analysis of protocols, responses to tests. As units of the analysis could be a sentence, or a phrase or a paragraph and could also range from small to large. (Kassarjian, 1977)

The smallest unit that can be used is a word and can be a phrase or a single word. The next larger unit is the theme. It constitute the most useful unit of content analysis but simultaneously the most difficult to be analyzed. In content analysis characters are also used as well as items which are the whole natural units. As items can be speeches, letters or whole stories. One of the three features of content analysis is direction. It refers to the pro or con treatment of the subject and only when it shows direction the analysis is productive. Another feature is reliability which describes the content of communication, e.g. work of a critic, opinion of a news writer. The last feature is called validity and is defined as the extent to which an instrument measures what he is supposed to measure. (Kassarjian, 1977)

Due to the fact that there exists an enormous quantity of processing data, computers are used which count words at high speeds and with great accuracy and reliability. In 1950, as part of

the General Inquirer System began the use of content analysis from computers and as a consequence the automation analysis. Core of this action is the creation of a dictionary in which each word is defined with a “tag” as for a category. (Kassarjian, 1977)

3.2.1 Various Approaches of Content Analysis

There are several approaches for Content Analysis in Social Media. We will refer approaches that present different methods.

What is true is that blogs and their popularity have increased the last few decades. Blogs contain as it is natural a variety of information such as opinions, information about technology or politics. What is important about blogs is the spread of information. So, Li et al in 2009 present a view of information propagation pattern in blogosphere by exploring blog cascade affinity. More specifically, blog cascade is a group of posts linked together communicating about the same theme and cascade affinity is the inclination of a blog to join a specific group of posts. They are trying to record an array of features which affect the behavior of a cascade and to make predictions using them about the cascade affinity. In the experiment they used a specific dataset of posts as well as the SVM-based technique and a 5-fold cross validation in order to make the predictions. The results showed that the number of friends as a feature affected the inclination most and maybe cascade types can indicate the genre of the context in the cascade. Of course, much work should be done in this field for a more spherical view. (Li et al., 2009)

Nahon and Hemsley in 2011, examine the structures of behavior of 50 top-blogs and how they linked to the 2008 presidential elections. The content they use is videos from the elections. Firstly, they examine through Social Network Analysis (SNA) and quantitative methods how top-blogs link to the content and then they explore the nature of the content during the elections. The list of the 50 blogs is created with the help of two blog search tools: Technorati and Google Search Engine and the clustering of the blogs concerns blogs that have same or similar content. Also, both top-blogs and tail-blogs act as network gatekeepers with a variety of roles. The outcome of this research was that information technologies do influence politics. What misses from this study, although, is a qualitative examination of the patterns of behavior. (Nahon and Hemsley, 2011)

Forum constitutes one of the types of social media used for political, cultural and social issues. Users are able to interact with others and express their opinions and sentiments freely as well. Zhang et al. in 2009 presented an automated feature-based approach in order to analyze gender differences on a female Islamic forum. In order to examine the content of the messages in the forum they used a SVM classifier with 10-fold cross validation. What was observed through this research was that males and females have significantly different topics of interest. The messages written by males or females were quite balanced although the number of males was equal to the number of females. Also, females seemed to be more and more active and more participative in politics and as a result gender differences in online use were apparent. (Zhang et al., 2009)

A new trend in annotating, organizing websites and blog entries and indicating their content is the use of tags. Tags are keywords used to an object or document as a form of metadata. The use of tags produces a “folksonomy”, a system in which the meaning of a tag is determined by its use. Brooks and Montanez in 2006 analyzed the effectiveness of tags in order to classify blog entries by measuring the similarities of the articles in the blogs that share tags. The experimental approach was to group documents that share tags into clusters and compare if they are similar or not. They used as tools for this research the N-gram-based approach in order to classify documents based on language. What is missing, on the other hand, from this study is the specification of relations between tags and not only finding the similarities between tags. (Brooks and Montanez, 2006)

Another research that uses tags is that of Hassanali and Hatzivassiloglou in 2010. They described a technique for tagging automatically blog posts using a combination of techniques and methods. More specifically, they collected data from two major political blogs during the period of two years using SVM Light to predict tags for a blog spot. They also used as methods the named entity recognition and co-reference resolution with the combination of the OpenNLP toolkit. NLP means Natural Processing Language (NLP) and is used as a semantic analysis method. (Hassanali and Hatzivassiloglou, 2010)

3.3 Sentiment Analysis – Opinion Mining and Subjectivity

There are two main types that characterize textual information: facts and opinions. Facts are objective expressions about events. Opinions are subjective expressions that describe

people's sentiments and emotions towards events. With the rapid development of technology and the appearance of social media people had more means to express their views and opinions worldwide. Specifically, forums, blogs and discussion groups are considered to gather user-generated content which contains opinionated text or else text with sentiments and opinions. Sentiment analysis or else opinion mining is considered as a text classification problem. (B. Liu, 2010)

Sentiment Analysis is done through sentiment classification. Sentiment classification or document-level sentiment classification aims to find the general sentiment of the text. In order to do so, we go a step forward with sentence-level sentiment classification where we decide if a sentence expresses opinion or not and if the opinion is positive, negative or neutral. Finding the opinion of all sentences in the text, then we find the general opinion of the document. A sentence may have objects or features and characteristics. An object can be represented as a tree, hierarchy or taxonomy. Evaluation of an object can be done with direct appraisal which means direct opinion (positive, negative or neutral) or comparison (with similar objects). An opinionated comment on an object is a general opinion. An opinionated comment on a specific feature is a specific opinion on a feature of the object. If a feature appears in a sentence then it is an explicit feature but if it is implied then it is an implicit. Similarly, a sentence is opinionated if it expresses implicit or explicit positive or negative opinions. (B. Liu, 2010)

The person that expresses the opinion is called holder and the opinion holders are also called opinion sources. If the opinion of a holder is positive, negative or neutral then it is called oriented. As emotions we consider thoughts or feelings. Except the six primary types of emotions which are love, joy, surprise, anger, sadness and fear there are other secondary or tertiary. (B. Liu, 2010)

Sentiment classification, which we mentioned earlier, classifies an opinionated document as expressing positive or negative opinion. In order for a document to be opinionated first all its sentences should be opinionated. Passing from the Document-Level Classification to the Sentence-Level we perform two tasks. Firstly, we should determine if a sentence is subjective and expresses opinion or objective and this step is called subjectivity classification. Secondly, if the sentence indeed expresses opinion, we should find if it is positive or negative and this step is called sentence-level sentiment classification. (B. Liu, 2010)

In order to identify the orientation of opinions of an object in a sentence, for each positive word that we find we consider it as +1, a negative as -1 and a dependent word as 0. If there are any But-clauses or negation words in a sentence we mention them as well with -1 and at the end we score the sentence and we find the opinion orientation. (B. Liu, 2010)

What is certain is that we need some rules to use as a basis to find the opinion orientation and from the combination of the old rules and the opinions we extract some new ones. A rule is considered to be an implication with an expression on the left and the implied opinion on the right. Some basic rules for positive or negative opinions (B. Liu, 2010) are presented in Table 3-1:

Table 3-1 Basic Rules of Opinion (B. Liu, 2010)

BASIC RULES FOR POSITIVE OR NEGATIVE OPINIONS	EXPLANATION OF RULES
Neg -> Negative	When the sentence is negative, then the outcome is negative
Pos -> Positive	When the sentence is positive, then the outcome is positive
Negation Neg -> Positive	When the sentence contains double negations, then the outcome is negative
Negation Pos -> Negative	When there is a negative word in a positive sentence, then the outcome is negative
Desired value range -> Positive	When an object feature has the expected value range, then the outcome is positive
Below or Above the desired value range -> Negative	When an object feature has a value range below or above the expected one, then the outcome is negative
Decreased Neg -> Positive	When the an item is negative and the quantity associated with it is decreased, then the outcome is positive

Decreased Pos -> Negative	When the an item is positive and the quantity associated with it is decreased, then the outcome is negative
Increased Neg -> Negative	When the an item is negative and the quantity associated with it is increased, then the outcome is negative
Increased Pos -> Positive	When the an item is positive and the quantity associated with it is increased, then the outcome is positive
Consume resource -> Negative	If an object produces resources which is positive and consumes a large quantity of them, then the outcome is negative
Produce resource -> Positive	If an object produces resources then the outcome is negative
Consume waste -> Positive	If an object produces wastes, which is negative and consumes it, then the outcome is positive
Produce waste -> Negative	If an object produces wastes, then the outcome is negative

Opinion search is indeed very useful and is considered to be a combination of information retrieval and sentiment analysis because given a specific keyword we can retrieve to documents or sentences relevant to it and identify and rank opinionated documents that are relevant to the query. What we should not forget to mention is opinion spams. There are three types of spams (B. Liu, 2010):

- Type 1: fake opinions trying to deliberately mislead readers and or damage reputations (defaming spam)
- Type 2: positive comments not on the specific products for review but only on brands (hype spams)

- Type 3: comments on advertisements or irrelevant texts that are not opinionated but appear to be so.

Detecting such spams is very important for applications. (B. Liu, 2010)

3.3.1 Various Approaches for Sentiment Analysis – Opinion Mining

Asur and Huberman in 2010, present how the content from the social media that Internet users prefer, can be used for the prediction of real outcomes. They used as a source, the Twitter in which each user can have followers, can write short messages of 140 characters max and can have as their content images, videos or text. Also, they can retweet by forwarding a post of one user to another. Their aim is to observe if knowledge extracted from the tweets can lead to predict future outcomes. In order to achieve it, they made a measurement on the tweets which was compared with an indicator of future outcomes. After that, they tried to examine how much of importance are sentiments in predicting future outcomes. What they needed was to classify the text if it was positive, negative or neutral and they confronted that by using DynamicLMClassifier. The results indicated that sentiments are useful and improve the predictions that can be made for real future outcomes. (Asur and Huberman, 2010)

Due to the fact that high volumes of electronic customer feedback are received in every day basis from companies, there is a need of intelligent and automated classification of them. This is what Gamon in 2005, tried to accomplish through his study. With the use of text mining tools large quantities of feedback get more manageable because they are splitting into clusters. The sentiment classification was done by Support Vector Machines (SVMs) and the difficulty was that the data were very noisy but the results showed that sentiment analysis could be performed in this kind of data. (Gamon, 2005)

In another study (Maynard and Funk, 2011) are mentioned in opinion mining from microposts and they create an example application in Twitter. They used a freely available toolkit GATE for NLP performing in a dataset of tweets basic sentiment analysis. As data they collected not only the basic such as names, political parties, person with their opinions but also date, time, number of followers, location and useful information. Firstly, they used linguistic pre-processing components such as morphological analysis, sentence splitting and then they applied a named recognition system ANNIE from GATE in order to make identifications of opinion holders and targets. Finally, they used Segment Processing

Resource to run the application. The outcome of this analysis was to understand people's emotions, thoughts, behaviors in a more general way and figure out which statements can be generalized and which are specific.

A new method for sentiment analysis presented by (Whitelaw et al., 2005) is based on analyzing appraisal groups. These are defined as coherent sets of words that together express a particular attitude. In this research they constructed a lexicon using semi-automatic techniques. The groups are collected from the texts heuristically and their attributes values are computed according to the lexicon. Appraisal indicates how an attitude is expressed towards a target. A full appraisal expression is contained of four elements: the Appraisee, the Appraised, the Appraised Type and the Orientation. The four types of attributes of the Appraisal Groups are mentioned which are the Attitude which can be affect, appreciation or judgment, Orientation which is positive or negative, Graduation which describes the intensity and finally Polarity which is marked or unmarked. The results of this study showed that the use of features based on appraisal group analysis improved sentiment classification and some types of appraisal appeared to be more significant for sentiment classification than others, as well.

O'Connor et al in 2010, through their study, connect measures of public opinion derived from polls with sentiment measured from text in Twitter. They link measurement in messages through time comparing to the data from the polls. The dataset of messages is asymmetric and a message is considered positive if it contains positive words and negative otherwise. Using simple text analysis techniques like NLP they concluded that more advanced techniques mean more improved opinion estimation. Also, they found a high correlation to sentiment word frequencies in the messages from Twitter. A future work they think of more varied questions of what people think based on the text they type. (O'Connor et al., 2010)

3.4 Conclusion

This Chapter has introduced the literature in the area of Content Analysis, Sentiment Analysis, and Opinion Mining. Having addressed the previously studies, it is easy enough to outline the limitations or the problems as well as the directions and the positions from the studies we mentioned above. This is necessary in order to understand the direction for our research methodology and as a result we present a Map in which we show where the

directions of the other studies are pointed and where we are heading now. Figure 3-1 depicts the Map of Theoretical Background and Literature Review presented in Chapters 2 and 3.

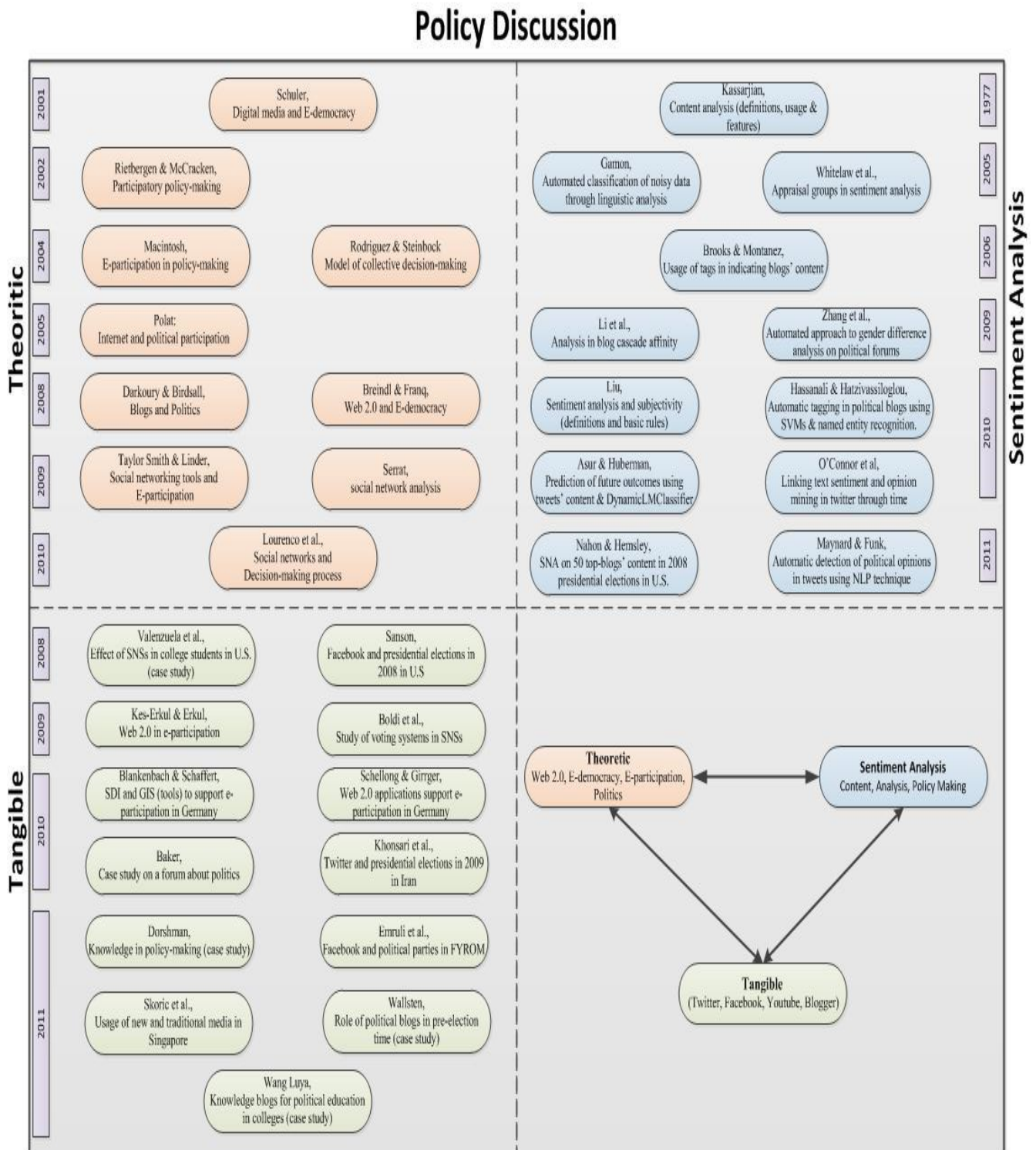


Figure 3-1 Map of Theoretical Background & Literature Review

4 Research Methodology

4.1 Introduction

As observed in earlier Chapters, there is a need to reclaim the social media platforms in part of politics and benefit from them. More and more users nowadays go online, creating profiles in social networks and make conversations with other users about various issues. What seem to concern most are the political scene and generally the way in which government rules and take decisions that affect citizens of a country.

In social media, users create content and have activities. As content we can refer posts, links images or videos. As activities from which they express their opinion we can mention the sharing, disapproving and commenting. Through the use of social media, users are able to participate in any policy process they are interested in, spend as much time as they need, put as much effort as they want in order to participate in common and access to information which is all the time updated and free. In this study, we will use the comments of the users which are called “content” in order to analyze it through sentiment analysis and make in the end some general rules. What we should not forget to mention is that we are interested in comments with political orientation.

This Chapter presents the methodology used for this study. Firstly, we present the social media platforms that we use. The chapter continues, by focusing on the content of social media and selecting a political event with the same theme in all platforms. In addition, there is a data collection from all the social media that we use and specifically which we use. Furthermore, the chapter continues with the creation of the ground rules based on the Modern Greek Grammar and then proceeds with the sentiment analysis of the comments. Finally, the chapter closes with the creation of the general rules based on the political content.

4.2 Social Media Platforms

Knowing which are the social media used worldwide, we selected for our research these that are the most popular sites according to Alexa (Alexa, 2012), with the most dynamic, these that offer multilingual support and are not in Beta version. So, the selected Social Media at the beginning of our study are presented in Table 4-1:

Table 4-1 Social Media Platforms Possible for Use

Blogging	Blogger / Wordpress
News-bookmarks	Digg / Delicious
Micro-blogging	Twitter
Image Sharing	Flickr / Picasa
Live broadcasting	Ustream
Video broadcasting	YouTube
Social Networks	Facebook / LinkedIn

Meanwhile, from Chapters 2 and 3, we notice that the social media platforms that were mentioned in case studies, approaches and methods of many researchers for were not all of the above platforms. They were only these which contained political content. So, our Social Media Platforms that we are going to use are more specifically these that are shown in Table 4-2:

Table 4-2 Selected Social Media Platforms for Use


Blogging	Blogger
Micro-blogging	Twitter
Video broadcasting	YouTube
Social Networks	Facebook

In order to continue, we present a description of these social media platforms in a more detailed way.

4.2.1 Blogger

The first Social Media Platform for which we offer a more detailed description is Blogger in Table 4-3:

Table 4-3 Blogger (Blogger, 2011)


BLOGGER	
Description	Blogger is a blog storage service that allows private or multi-user blogs with time-stamped entries. In the 23th August in 1993 this service was launched by Pyra Labs and later in February 2003, it was bought by Google under certain terms.
URL	www.blogger.com/
Available Languages	41 (English, French, Italian, German, Spanish, Dutch, Portuguese, Chinese, Japanese, Korean etc.)
Type of content	Text, photos, videos
User Engagement	<ul style="list-style-type: none"> • A user can post text, photos and videos to his blog • Create a team blog
Accessibility	<ul style="list-style-type: none"> • A user can post to his blog from a web browser • A user can post to his blog from his mobile phone or through a secret Mail-to-Blogger email address. He can even use the Blogger Post Gadget to publish posts directly from his iGoogle homepage.
Main Features	<ul style="list-style-type: none"> • In Blogger the registration is free. It offers to users the ability to create their own blog where they can share their thoughts about upcoming events or what is happening in their lives and generally whatever they find curious to talk about with the rest of the users • Users in order to create their blogs have to achieve a few steps, starting with photos, videos and more to the blog. It is free to post and it is even free to post as often as the user desires • The interface that someone uses in order to fix his blog it is easy and simply he can uses fonts, bold, italics or change the colors of his blog's background. Every time that a change takes place, Blogger saves it automatically. The interface that the service provides helps each one add labels to his blog and make any changes in how the blog looks like • When a user is registered the service offers him an available

	<p>URL and if he wants he can change it with a different URL</p> <ul style="list-style-type: none"> • Blogger offers to every user a domain name and provides him with all the essential features in order to get started. He can choose from many templates for his blog and he can easily create a free Picasa Web Albums account where he can organize photos into albums • A user can upload a video through blogger on Google Video • When a user reads a post, has the opportunity to leave a comment and receives notification when another one leaves a comment too, or add or change a photo or a video of his blog. The notifications arrive to the user only if he is a member in a community of friends • A user has the ability to create a team blog or make his blog private and allow to certain users view his blog • Blogger has imposed some limitations on content storage and bandwidth for every user. The number of blogs is unlimited, the number of labels cannot be up to 20 unique labels for every post and the number of pictures has to be Up to 1 GB of total storage. The size of pages is limited to 1 MB and the size of pictures is limited to 250 KB for every picture. In conclusion, team members have to be 100
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4.2.2 Twitter

The second Social Media Platform for which we offer a more detailed description is Twitter in Table 4-4:

Table 4-4 Twitter (Twitter, 2011)


TWITTER	
Description	Twitter is a social networking and microblogging service that enables its users to send and read messages known as tweets and it was created in 2006 by Jack Dorsey.
URL	https://twitter.com/
Available Languages	6 (English, Italian, Spanish, German, French, Japanese)
Type of content	Text messages
User Engagement	<ul style="list-style-type: none"> • Send messages • Read messages • Search for people

	<ul style="list-style-type: none"> Follow lists of authors instead of following individual authors
Accessibility	Users can send and receive tweets via the Twitter website, Short Message Service (SMS) or external applications. While the service itself costs nothing to use, accessing it through SMS may incur phone service provider fees
Main Features	<ul style="list-style-type: none"> Twitter allows you to send and read other users updates (known as tweets) Twitter messages(tweets) are limited to 140 characters (microblogging) You can send and receive updates via the Twitter website, SMS (text messages), RSS (receive only), emails or a third party application You can restrict delivery to your circle of friends (delivery to everyone is the default) You can use third party application such as Tweetie, Twittrific, and Feedalizr to send Twitter messages You can search for people by name or user name, import friends from other networks, or invite friends via email You can register at twitter sign up page and tweet Users can follow lists of authors instead of following individual authors

4.2.3 Facebook

We continue with the detailed description of Facebook in Table 4-5:

Table 4-5 Facebook (Facebook, 2011)

FACEBOOK	
Description	Facebook is a social networking website owned by Facebook Inc
URL	http://www.facebook.com/
Available Languages	63
Type of content	Text, video, photos
User Engagement	<ul style="list-style-type: none"> Invite friends Send – receive e-mails Chat with friends Upload photos and videos Tag


	<ul style="list-style-type: none"> • Poke • Post free ads • Send gifts • Play games • Join groups • Organize social events
Accessibility	<ul style="list-style-type: none"> • Web browser • Facebook Mobile Application for smartphones
Main Features	<ul style="list-style-type: none"> • A user is registered in facebook free • The user's profile is private • A member can create a profile with photos, personal information such as his name, his country, the name of city he lives in and his age, contact information including a valid e-mail address and a list of his personal interests • A user can send or receive e-mails either private or public or using a chat feature • Using this social network the user has the ability of adding new friends • A user can update his personal profile sending notifications to friends about him • A member has the opportunity to join networks organized by city, workplace, and school or college. He can join several groups some of which are created from organizations as a mean of advertising, or create his own interesting group • Users can upload an unlimited number of photos (200 photos per album) and have the ability to "tag", or label users in a photo • Members can change their private settings and decide what is going to be visible in their profile. Users can utilize plain • Wall, a space on every user's profile page that allows friends to post messages for the user to see • Pokes, which allows users to send a virtual "poke" to each other (a notification then tells a user that they have been poked) • Status, which allows users to inform their friends of their whereabouts and actions • News Feed appears on every user's homepage and indicates the information that is updated or upcoming events • Users can send gifts to their friends • Marketplace allows users to post free classified ads • Events give to user updated information and events that are going to happen and video lets the users to upload their favorite videos. Facebook events are a way for members to let friends know about upcoming events in their community and to organize social gatherings. Events require an event name,

	<p>network, host name, event type, start and end time, location, and a guest list of friends invited. Events can be open, closed, or secret. When setting up an event the user can choose to allow friends to upload photos or videos</p> <ul style="list-style-type: none"> • Users can play games (Gardens of Time, Zoo World, Bubble with Saga, etc.)
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4.2.4 YouTube

The fourth Social Media that we are about to describe is YouTube in Table 4-6:

Table 4-6 YouTube (YouTube, 2011)

YouTube	
Description	YouTube is a video sharing website. In November 2006, YouTube, LLC was bought by Google Inc
URL	http://www.youtube.com/
Available Languages	14
Type of content	Movie clips, TV clips, and music videos, as well as amateur content such as video blogging and short original videos
User Engagement	Upload video, comment, respond to videos with more videos
Accessibility	<ul style="list-style-type: none"> • Web browser • YouTube Mobile Application for smartphones
Main Features	<ul style="list-style-type: none"> • Registered users are permitted to upload an unlimited number of videos • Unregistered users can watch the videos • Videos that are considered to contain potentially offensive content are available only to registered users over the age of 18 • The uploading of videos containing defamation, pornography, copyright violations, and material encouraging criminal conduct is prohibited by YouTube's terms of service • The account profiles of registered users are referred to as "channels"

4.3 Selection of a Political Issue

From the social media platforms that we selected to use, we will choose a political issue that we are interested in and contains a large amount of comments. We need an issue that many authors have commented it and of course with political orientation. In order to find out which is the most appropriate issue to use for the sentiment analysis and the creation of general rules concerning political content, first of all we have to find one that has the same theme in all social media platforms. We cannot select different issues in different social media because the analysis of the comments in order to make the final rules will not be correct. The issue must be the same, must be about politics and must have a variety of comments in all social media platforms so that the rules will concern only the specific.

4.4 Selection of Popular and High-Ranked Users or Groups in Social Media Platforms

After selecting the political issue that we are interested in, the second step is to select from the social media platforms the most popular and high-ranked users or groups speaking about politics. In order to choose the most appropriate, we are going to use as helpful tools Alexa for blogs, Trending (Trending, 2012) for Twitter and Famecount (Famecount, 2012) for Facebook and YouTube.

Alexa is the leading provider of free, global web metrics. Searching in Alexa a user discovers the most successful sites on the web by keyword, category or country. Trending is a free service that analyzes daily tweets of Greek users and lists interesting statistics as trending topics, most re-tweeted tweets, top users, hot videos, top users and top links. Famecount is a tool which makes it easy to keep on top with who's who in social media around the world and each week provide users with statistics of who is popular and who is not.

4.5 Data Collection

4.5.1 Purpose

The purpose of this study is to collect as much comments as possible that concern a political issue and analyze them. The comments are the content of the social media platforms that we choose to use and have political orientation. With the help of Modern Greek Grammar we will create ground rules. Through the comments' analysis based on sentiment and subjectivity and with the help of ground rules, we will extract general rules for policy-making.

4.5.2 Data Collection Process

As mentioned earlier, one objective of this research is to retrieve data from social media platforms. Our goal is to collect political content with the form of authors' comments and analyze it based on sentiment and subjectivity. We will collect the data set which contains the comments by hand and store them altogether so that they can be analyzed more easily and effectively.

Our data set contains comments written in Greek because our survey refers to politics in Greece. However, many problems seem to occur during the data collection procedure. First of all, the authors, using the social media platforms to comment about politics, write their views and express their opinions not always using Greek alphabet but also Greeklish, which is the Greek language written using the Latin alphabet. Secondly, these that write in Greek, they are not always using the correct spelling and punctuation, for example they do not use the question mark in order to make a question but they leave the sentence without it.

The data set must have a specific form because the sentiment analysis of the content is not correct in another way. As a result of this situation we collect the data, we store them in a matrix and then we reform them in Greek with the correct spelling and punctuation carefully enough so that we can process them later without changing the meaning of any sentence. Another reason that we cannot have heterogeneous content is that if we want as a future work to automate the analysis procedure through a tool, this will not be able to happen if the data do not have the same form.

4.6 Determining the Sentence Logic

In order to find the feeling of the collected comments of which the data set is consisted and in order to decide if the comments' opinion is positive, negative or neutral, we create a new Sentiment Analysis methodology especially for the Greek language. Our proposed methodology is basically inspired from the Boolean Algebra (Boolean algebra, 2012) and the Modern Greek Grammar.

According to our methodology, each word is translated into a Value in order to be analyzed via Sentiment Analysis. To assign the word into Values we will create 6 Ground Rules of Opinion based on the Modern Greek Grammar . As Values we consider +1 for positive orientation, -1 for negative orientation, 0 for neutral orientation and 1 negation. Moreover, we

create a truth table named as a Table of Values. This table is responsible for determining the outcome orientation between two words. In this way, it is possible to find sentiment of a sentence, paragraph or document. Based on the 6 Ground Rules of Opinion we will conduct Sentiment Analysis to our collected data and then we will create 8 more General Rules of Opinion, which will be either new ones or supplementary to Ground ones.

Boolean Algebra is a variant of elementary algebra differing in its values, operations and laws. It is the algebra of truth values 0 and 1 or equivalently of subsets of a given set. As operations it has the conjunction (\wedge), disjunction (\vee) and negation (\neg). In our methodology, inspired from the Boolean Algebra, in order to find the orientation of the whole sentence, we first take in each sentence every time the combination of two words, we do the disjunction, we find the orientation and their orientation is used as the one part of the next combination of words and so on till the end of the sentence. That is why we will use as an operation in the part of Analysis the disjunction and the negation (\neg). Disjunction works almost like addition (+).

Table 4-7 is a Table of Values and presents all the different combinations that we can have in the Analysis. If we could analyze the Truth Table we could say that in cases that we have words with a neutral orientation with value 0 and a positive with value +1, the outcome will give positive orientation. If we have words with a neutral orientation with value 0 and a negative orientation with value -1, the outcome will give negative orientation. In the case that we have words with the same orientation with values 0 and 0 or else +1 and +1 or else -1 and -1 then the outcome will be the same as their orientations giving neutral, positive or negative respectively. Last but not least, if we have a word with positive orientation with value +1 and a word with negative with value -1, the outcome will be neutral with value 0, unlike the Boolean Algebra because in our case the values belong to words finding their orientation and not if they are correctly true or false as in the relational proposal. Now, as for the negation “ \neg ”, if we have a word with positive orientation and the negation follows or is previous of the word then the word has negative orientation. If we have a neutral word and the negation follows or is previous of the word then the word has negative orientation. If we have a word with negative orientation and the negation follows or is previous of the word then the word has positive orientation because in Boolean Algebra negation after negation gives a positive outcome.

Table 4-7 Table of Values

First Word Orientation	Second Word Orientation	Disjunction (First Word \vee Second Word)
0	0	0
0	+1	+1
+1	0	+1
+1	+1	+1
0	-1	-1
-1	0	-1
-1	-1	-1
+1	-1	0
-1	+1	0
1	0	-1
0	1	-1
1	+1	-1
+1	1	-1
1	-1	+1
-1	1	+1

In Figure 4-1 we present a paradigm of how we will make Sentiment Analysis in a comment.

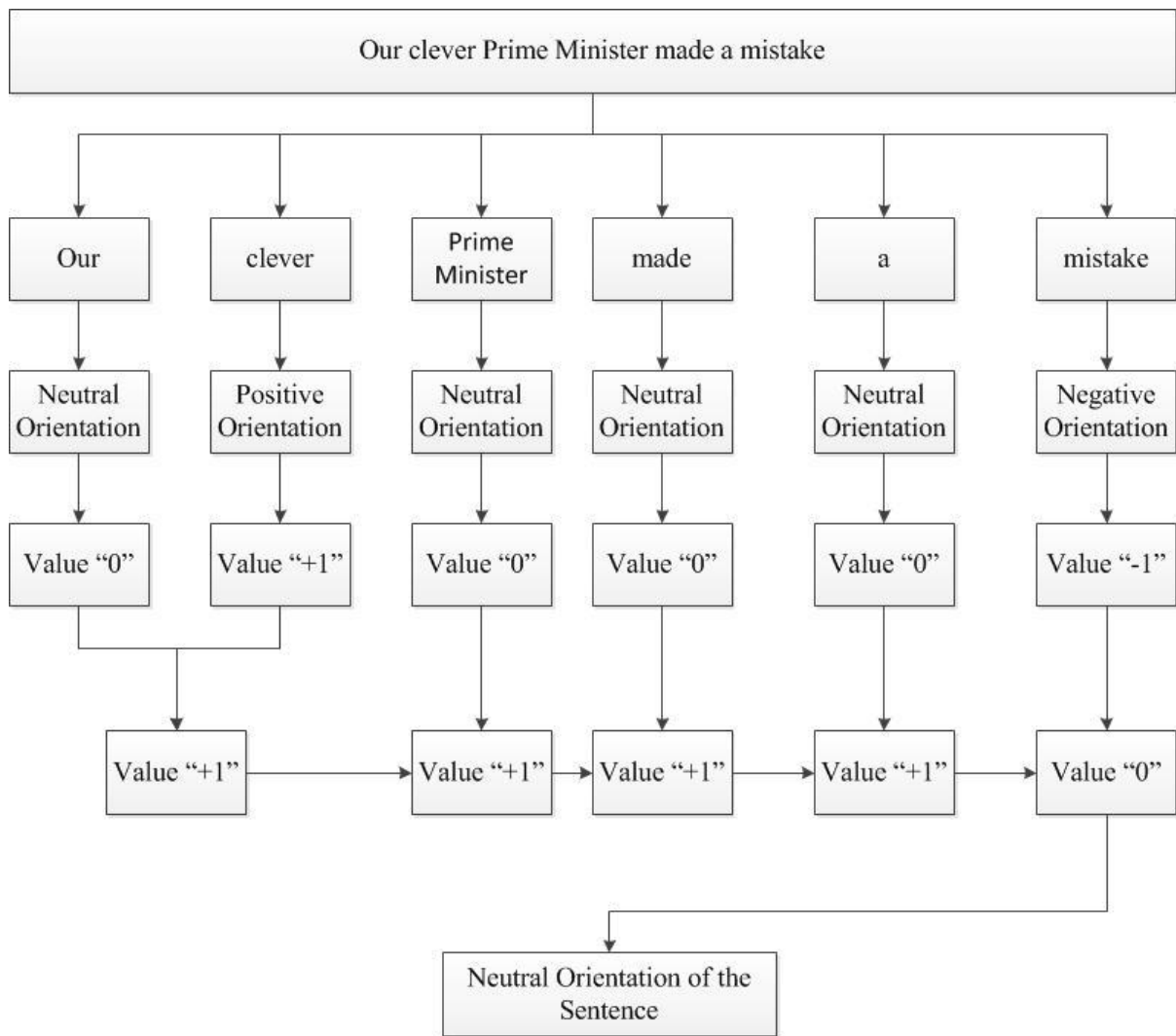


Figure 4-1 Paradigm of Sentiment Analysis on a Comment

4.7 Creation of Ground Rules of Opinion based on Modern Greek Grammar

A rule of opinion is a phrase in which the statement indicates something that is true and real. It is an expression of speech which represents a concept and can be formed as a simple sentence or as two parts. The left part is the word or a phrase pointing with a (→) the opinion in the right part which can be Negative or Positive.

A ground rule of opinion used for policy making is a rule that we can use so that we can make content sentiment analysis and later create more general rules based on the original ones. The content from the social media platforms refers to political decisions in Greece so

the rules that we create need to be in Greek. The creation of Ground Rules occurs with the help of Modern Greek Grammar. (Μ. Τριανταφυλλίδης, 1941), (Μ. Τζεβελέκου, Β. Κάντζου, Σ. Σταμούλη, 2007), (Α.Γ. Κρασανάκη, 2000)

Although we will create in this subchapter the General Rules, we will use them as methodology to create the General Rules in the next chapter.

4.7.1 Ground Rule #1 (Yes/No)

Two simple words point the opinion orientation of a sentence.

Όχι → Negative

Where: Όχι means No, it is opinionated as negative and scores “-1”

Ναι → Positive

Where: Ναι means Yes, it is opinionated as positive and scores “+1”.

4.7.2 Ground Rule #2 (Punctuation)

Punctuation plays an important role in speech. It helps us understand better what the author needs to say during his comments. More specifically,

Τελεία (.) → sentence ends

Where: Τελεία means period and it scores “0” giving neutral orientation.

Άνω Τελεία (ː) → sentence stops for a while

Where: Άνω Τελεία means semicolon and it scores “0” giving neutral orientation.

Κόμμα (,) → small stop of voice

Where: Κόμμα means comma and it scores “0” giving neutral orientation.

Ερωτηματικό (;) → question

Where: Ερωτηματικό means question mark and it scores “-1” giving negative orientation.

Θαυμαστικό (!) → exclamation

Where: *Θαυμαστικό* means exclamation mark and it scores “+1” giving positive orientation or “-1” giving negative orientation.

Διπλή Τελεία (:) → before someone’s words

Where: *Διπλή Τελεία* means double period and it scores “0” giving neutral orientation.

Παρένθεση () → explanation

Where: *Παρένθεση* means brackets and it scores “0” giving neutral orientation.

Αποσιωπητικά (...) → sentence continues without words giving emphasis

Where: *Αποσιωπητικά* means ellipsis and it scores “-1” giving negative orientation.

Παύλα (-) → author makes a dialogue

Where: *Παύλα* means dash and it scores “0” giving neutral orientation.

Διπλή Παύλα (- -) → phrase between them

Where: *Διπλή Παύλα* means double dash and it scores “0” giving neutral orientation.

Εισαγωγικά (“ ”) → between them words of someone just like he said

Where: *Εισαγωγικά* means quotation marks and it scores “-1” giving negative orientation.

4.7.3 Ground Rule #3 (Existence of adjectives, nouns, verbs)

There are some words that we use in our daily speech and help us make our speech more fluent and more enriched. These words are the *adjectives*, the *nouns*, the *verbs* and the *adverbs*. As nouns we consider words that indicate a person, an animal, a plant, a thing, an action, a condition or a status. As adjectives we regard words that provide to nouns a characteristic or a value or a quality. As verbs we assume words that indicate that a person is doing something, an action or something happens or a person is in a state. As adverbs we consider indeclinable words that define others. The four kinds of words are very important to be found in the authors’ comments because they give a positive or a negative orientation to the sentences.

4.7.4 Ground Rule #4 (Comparative/Superlative Degree)

Every adjective or adverb has a Comparative and a Superlative Degree. A comparative sentence expresses a relation based on similarities or differences of more than one object. A comparative is used to state that one object has more of a specific quantity than another object. A superlative is used to state that one object has the most or the least of a specific quantity and as a result the orientation of the word becomes double (double positive or double negative).

In **comparative** degree the adjectives with two syllabuses or more and the adverb get the suffix:

-οτερος

-υτερος

-εστερος

-τερα

Where: when the objects that get into comparison are positive opinionated then they score “+1” else if they are negative opinionated they score “-1”.

In **superlative** degree the adjectives with two syllabuses or more and the adverb get the suffix:

-οτατος

-υτατος

-εστατος

-τατα

Where: when the word in the superlative degree has a positive orientation, its orientation becomes double and it is like we have two positive orientations. The double position is written in fact with +1+1 but for easiness we write it with ++1 (double positive). If the word in the superlative degree has a negative orientation, its orientation becomes double and it is like we have two negative orientations. The double negation is written in fact with -1-1 but for easiness we write it with - -1 (double negative).

There are also the irregular adjectives which have different degrees than others and they do not follow this rule. These are:

απλός/απλά → απλούστερος/απλούστερα → απλούστατος/απλούστατα

γέρος → γεροντότερος

κακός → χειρότερος → χείριστος

καλός → καλύτερος → άριστος

λίγος → λιγότερος → ελάχιστος

μεγάλος → μεγαλύτερος → μέγιστος

μικρός → μικρότερος → ελάχιστος

πολύς → περισσότερος

Where: in English the adjectives two syllabuses or more get the suffix get the suffix: -er for comparative and -est for superlative degree. There are irregular comparatives and superlatives in English as well some of them are: more, most, less, least, better, best, worse, worst, further, furthest.

4.7.5 Ground Rule #5 (Conjunctions)

Conjunctions also play an essential role on how words, phrases or sentences connect each other. These are indeclinable words and have various types. More specifically, as conjunctions we define:

Συμπλεκτικοί (και, ούτε, μήτε, ουδέ, μηδέ) → connect the sentences affirmative and negative

it scores “+1” when the sentences that connects are positive and the sentence has positive orientation or “-1” when the two sentences that connects are negative and the sentence has negative orientation. If the one sentence is positive and the other negative then the whole sentence has neutral orientation with value “0”.

Διαχωριστικοί (ή, είτε) → connect the sentences alternatively

it scores “+1” when the sentences that connects are positive and the sentence acquires positive orientation or “-1” when the two sentences that connects are both negative or the one of the two giving to the sentence negative orientation. If the one sentence is positive and the other negative then the whole sentence has neutral orientation with value “0”.

Αντιθετικοί (μα, αλλά, παρά, όμως, ωστόσο ενώ, αν και, μολονότι, μόνο) → connect sentences with opposite meaning

it scores “0” and the sentence becomes neutral because it connects two sentences with opposite meaning.

Συμπερασματικοί (λοιπόν, ώστε, άρα, επομένως, που) → connect sentences that produce a meaning as a conclusion of another

it scores “+1” if the main sentence expresses positive orientation and the whole sentence gets positive or “-1” if the main sentence expresses negative orientation and the whole sentence gets negative.

Επεξηγηματικοί (δηλαδή) → connect sentences which give an explanation

it scores “+1” if the main sentence expresses positive orientation and the whole sentence has positive orientation or “-1” if the main sentence expresses negative orientation and the whole sentence has negative orientation.

Ειδικοί (πως, που, ότι) → connect sentences that complete the meaning one of the other

it scores “+1” if both sentences express positive orientation and the outcome of the sentence is positive or “-1” if both sentences express negative orientation and the outcome of the sentence is negative or “0” if the sentences express the one positive and the second negative orientation and the sentence is neutral.

Χρονικοί (όταν, σαν, ενώ, καθώς, αφού, αφότου, πριν, μόλις, προτού, ώσπου, ωσότου, όσο που, όποτε) → connect sentences which define the time of an action

it scores “+1” if both sentences express positive orientation and the whole sentence becomes positive or “-1” if both sentences expresses negative orientation and the whole sentence becomes negative or “0” if the sentences express the one positive and the second negative orientation and the whole sentence becomes neutral.

Αιτιολογικοί (γιατί, επειδή, αφού) → connect sentences which produce meaning as an excuse for an action

it scores “+1” if both sentences express positive orientation and the outcome of the sentence is positive or “-1” if both sentences expresses negative orientation and the outcome of the sentence is negative or “0” if the sentences express the one positive and the second negative orientation and the outcome is neutral.

Υποθετικοί (αν, σαν άμα) → connect sentences with hypothetical meaning

it scores “+1” if both sentences express positive orientation and the whole sentence becomes positive or “-1” if both sentences expresses negative orientation and the whole sentence becomes negative or “0” if the sentences express the one positive and the second negative orientation and the whole sentence becomes neutral.

Τελικοί (να, για να) → connect sentences which meaning defines the purpose of an action

it scores “+1” if both sentences express positive orientation giving to the whole sentence positive orientation or “-1” if both sentences expresses negative orientation giving to the whole sentence negative orientation or “0” if the sentences express the one positive and the second negative orientation and the whole sentence becomes neutral.

Αποτελεσματικοί (ώστε, που) → connect sentences which meaning is a consequence of another

it scores “+1” if both sentences express positive orientation and the whole sentence becomes positive or “-1” if both sentences expresses negative orientation and the whole sentence becomes negative or “0” if the sentences express the one positive and the second negative orientation and the whole sentence becomes neutral.

Διστακτικοί (μη μήπως) → connect sentences which meaning defines hesitation

it scores “+1” if both sentences express positive orientation and the outcome of the sentence becomes positive or “-1” if both sentences expresses negative orientation and the outcome of the sentence becomes negative or “0” if the sentences express the one positive and the second negative orientation and the outcome of the sentence becomes neutral.

Συγκριτικοί (παρά) → connect sentences which make a comparison

it scores “+1” if both sentences express positive orientation and the whole sentence becomes positive or “-1” if both sentences expresses negative orientation and the whole sentence becomes negative or “0” if the sentences express the one positive and the second negative orientation and the whole sentence becomes neutral.

Where in English: Copulative means Συμπλεκτικοί, Separatist means Διαχωριστικοί, Negative means Αντιθετικοί, Inferential means Συμπερασματικοί, Explanatory means Επεξηγηματικοί, Special means Ειδικοί, Temporal means Χρονικοί, Explaining means Αιτιολογικοί, Hypothetical means Υποθετικοί, Final means Τελικοί, Efficacious means Αποτελεσματικοί, Hesitant means Διστακτικοί and Comparative means Συγκριτικοί.

4.7.6 Ground Rule #6 (Exclamations)

One more basic rule is referring to exclamations. They are indeclinable words that have positive or negative orientation based on their meaning. Exclamations indicate:

admiration, hope, joy, surprise → positive

Where: the positive exclamations score “+1” giving positive orientation.

**pain, sorrow, irony, sadness, denial, delay, uncertainty, hesitation, anger, fear →
negative**

Where: the negative exclamations score “-1” giving negative orientation.

4.8 Sentiment Analysis of Comments

As we have mentioned in Chapter 2, sentiment analysis or else opinion mining is the ability to discover, extract, read, summarize peoples’ views, opinions and sentiments and organize them into usable forms. Sentiment analysis by many researchers is thought to be a classification problem. This happens because in order to classify an opinionated document if it expresses a positive or a negative opinion, first we have to classify each sentence in the document whether it expresses an opinion or not and if it does, whether it has a positive,

neutral or negative opinion. As a result we have the document-level sentiment classification and the sentence-level sentiment classification.

From the text that we analyze we need to find out in each sentence the targets on which opinions have been expressed. As targets we define the objects with their attributes and features. The evaluation of the object can be done in two ways: directly or with comparison. Directly (or else direct opinion) means that it expresses a positive or negative opinion without mentioning other objects. Comparison means that that it expresses a positive or negative opinion comparing it with other objects.

In order to simplify the process, we use the term features to represent both components and attributes. When we have an opinion about the object then we have a general opinion on it. If we have a comment on its feature then we have a specific opinion on the feature of it. If the feature appears in the sentence, then it is called explicit feature. If the feature is implied in the sentence, then it is called implicit feature.

A holder is the person that expresses the opinion. As opinion holders usually are the authors of the posts. An opinion is a positive or negative view, attitude, emotion, sentiment. The orientation of the opinion indicates if the opinion is positive, neutral or negative. An opinion can be done directly or with comparison. Direct opinion means an opinion for an object without mentioning other objects. Comparison means that the author compares the object with others in order to express an opinion. In comparison he uses the comparative or the superlative form of an adjective or adverb. Also, an explicit opinion on a feature is an opinion explicitly expressed and an implicit opinion is opinion implied on a feature.

4.9 Creation of General Rules of Opinion based on Political Content

In the previous subchapter we saw how we are able to make sentiment analysis on comments' authors which consist of a variety of political content from the selected social media. From the combination of the sentiment analysis of the political content and the already created ground rules of opinion, in this step which is the final step of methodology, we create the general rules of opinion for policy making.

4.10 Conclusion

This Chapter has outlined the research methodology. We present a flowchart which shows the basic steps of it in Figure 4-2. We analyzed each step of the methodology as subchapters in Chapter 4. After all, a good established research methodology is the most useful information in the most cost-effective and realistic fashion.

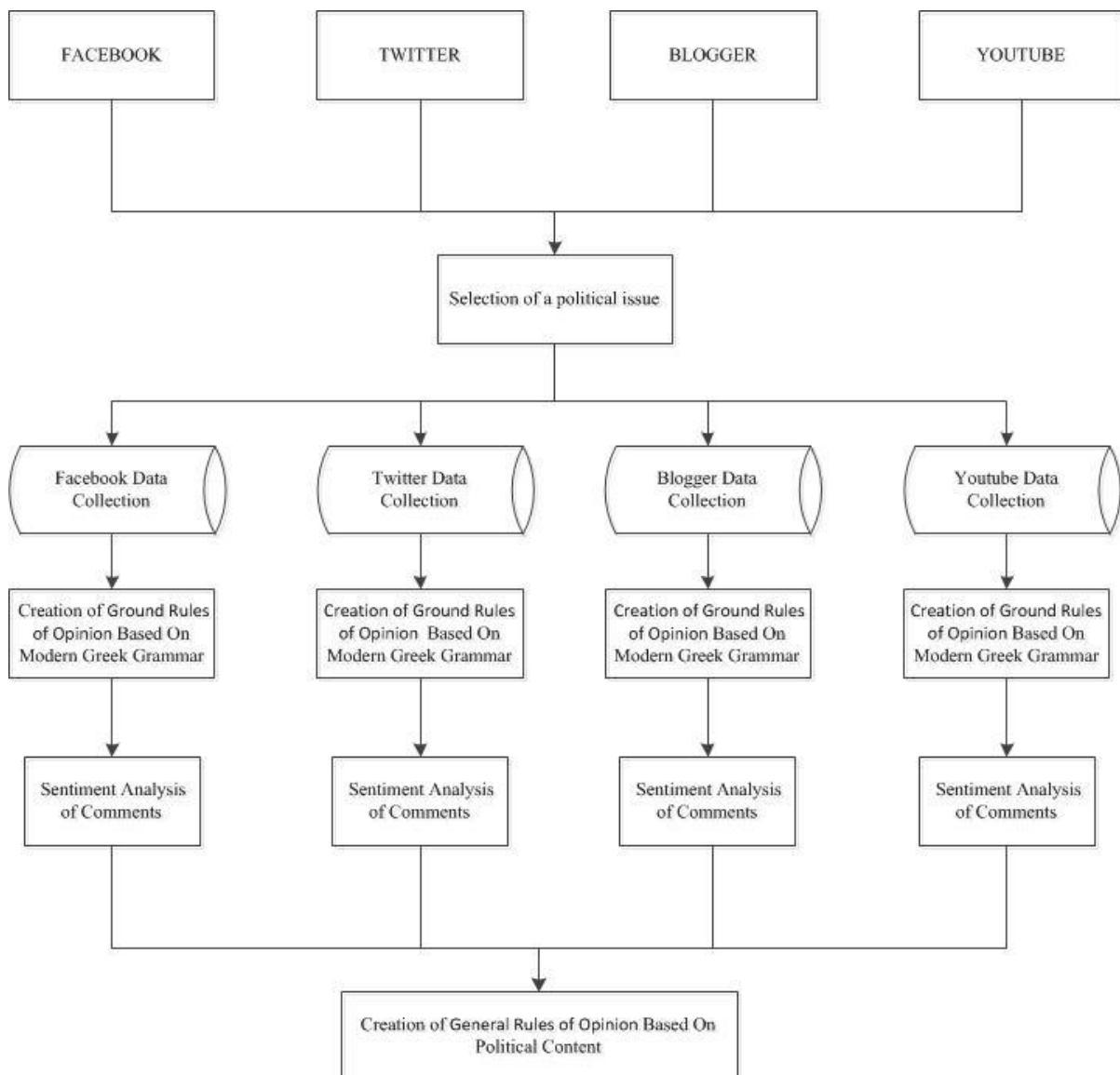


Figure 4-2 Basic Steps of Methodology

5 Sentiment Analysis of Political Content

In this chapter we will focus on the Content Analysis of Comments with political orientation retrieved from various social media platforms. At first, we will mention which political issue we are interested in and then through the social media platforms we will gather all comments that are related to it. Next we will make sentiment analysis using the ground rules of opinion and we will create the general rules for policy-making.

5.1 The Selected Political Issue

After a lot of research we managed to figure out which political issue to choose. The dilemma government reformation or elections in 2012 in Greece is the political issue that is about to concern us. Of course, what is certain is that we have to present how we ended up choosing this political issue.

Greece, over the last decade, went on a debt binge that came crashing to an end in late 2009, provoking an economic crisis, affecting not only the country but also the European Union. From that point, Greece has relied on an aid package of €110 billion, or \$152.6 billion. As a result, the country would restore its confidence and with a majority of measures would cut its deficit. Unfortunately, something like that did not happen and investors continued to demand higher interest rates.

After months of interior protests and building pressure, the Prime Minister George Papandreou decided to step down and in November 2011, Lucas Papademos, economist and former vice president of the European Central Bank, was named as Prime Minister of Greece. He was chosen to head a temporary government of national unity and quickly approve the terms of the aid package as well as save the country from bankruptcy.

Unfortunately, the sense of crisis had returned, as the European Union told Greece to move forward with promised economic changes. Later on, Mr. Papademos warned that without deeper spending cuts the deficit would grow much more. The warning from the European Union made clear that Greece needed a change. Mr. Papademos promised to make some structural changes reforming the government. As recently as November, everyone was optimistic that the Prime Minister would stabilize Greece's debt and help the country recover.

Despite the fact that Greece went with the financial budget of 2012, it did not manage to make all the promised structural changes. Since then, the interim government and the political parties wanted national elections till March 2012 and the new structure of government was completely paralyzed. (New York Times, 2012)

5.2 The Selected Popular Users and Groups in the Social Media Platforms

In this section we use the tools that will help us search and find the most popular users, groups and blogs in the domain of politics.

5.2.1 Most Popular Twitter Users or Groups in Politics

The tool that we are going to use is Trending in order to find who are the most popular twitter key users and groups with the most followers dealing with politics. From the Top Users we extracted these shown in Table 5-1:

Table 5-1 Most Popular Twitter Users or Groups in Politics

TWITTER USERS/GROUPS	LINKS	FOLLOWERS
Nchatzinikolaou	https://twitter.com/#!/NChatzinikolaou	74098
PrimeministerGR	https://twitter.com/#!/PrimeministerGR	32687
g_papandreou	https://twitter.com/#!/g_papandreou	20565
Protothema	https://twitter.com/#!/protothema	19714
kathimerini_gr	https://twitter.com/#!/kathimerini_gr	16286
Enetgr	https://twitter.com/#!/enetgr	15925
EvaKaili	https://twitter.com/#!/EvaKaili	14565
News247gr	https://twitter.com/#!/News247gr	10287
Evenizelos	https://twitter.com/#!/EVENizelos	12830
ta_nea	https://twitter.com/#!/ta_nea	9093

5.2.2 Most Popular Blogs in Politics

After finding the most popular twitter users or groups, we will use as a tool the Alexa and we will present which blogs were positioned in high ranks. More specifically, we will observe that some of the most popular twitter users or groups have high ranks in Alexa too. First, we display the blogs sorting them from the one with the higher rank to the one with the lower. The higher a blog exists the more popularity it has.

In Figure 5-1, we observe that a blog with political news for not only Greece but also worldwide is ranked #14 in Greece according to the three-month Alexa traffic rankings. This blog is called newsit.gr.

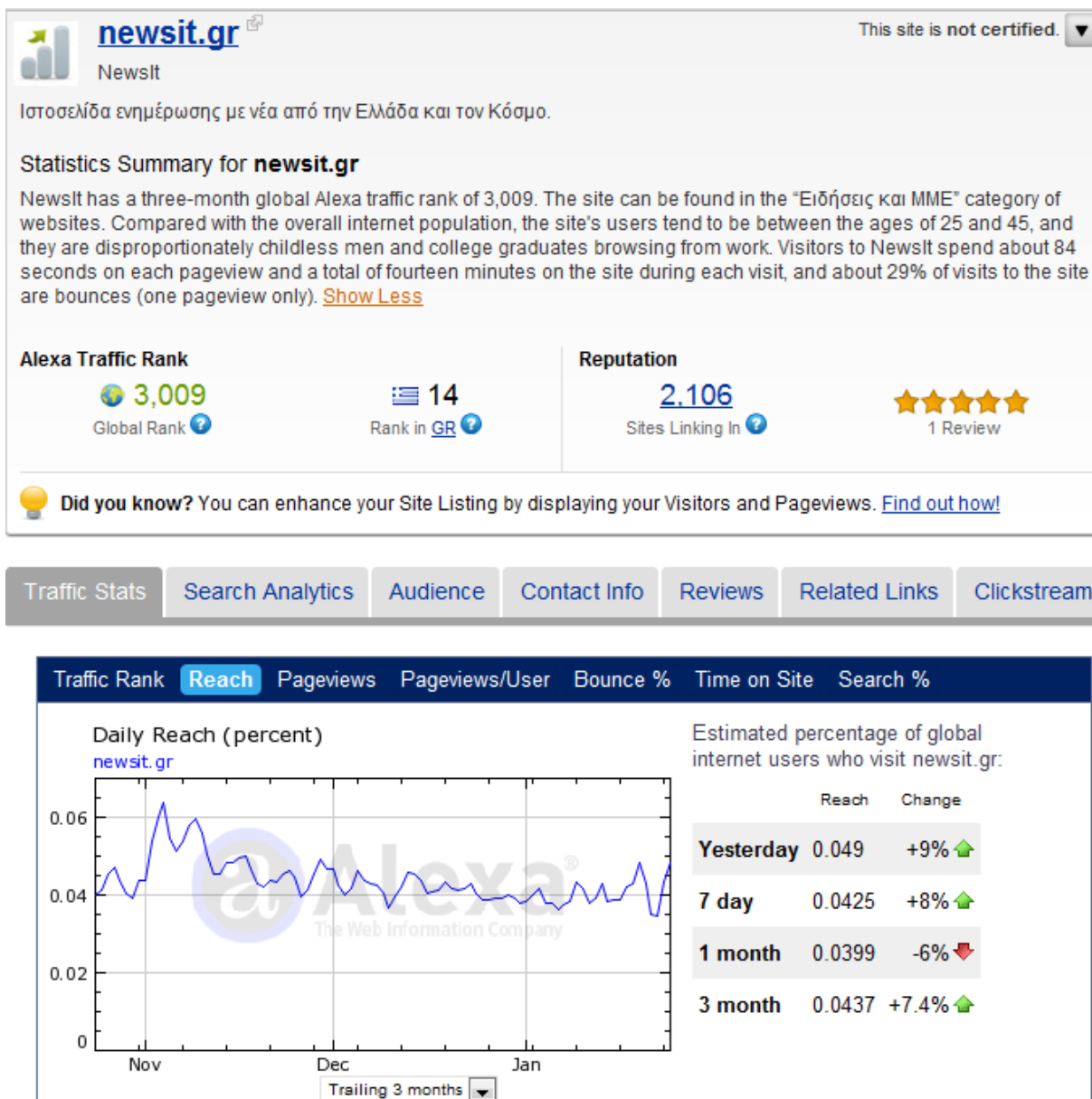


Figure 5-1 NewsIt.gr in Alexa (Alexa (a), 2012)

Second, in Alexa Ranking is positioned newsbeast.gr, which is a Greek 24 hours news site. It is ranked #18 in Greece and presented in Figure 5-2:

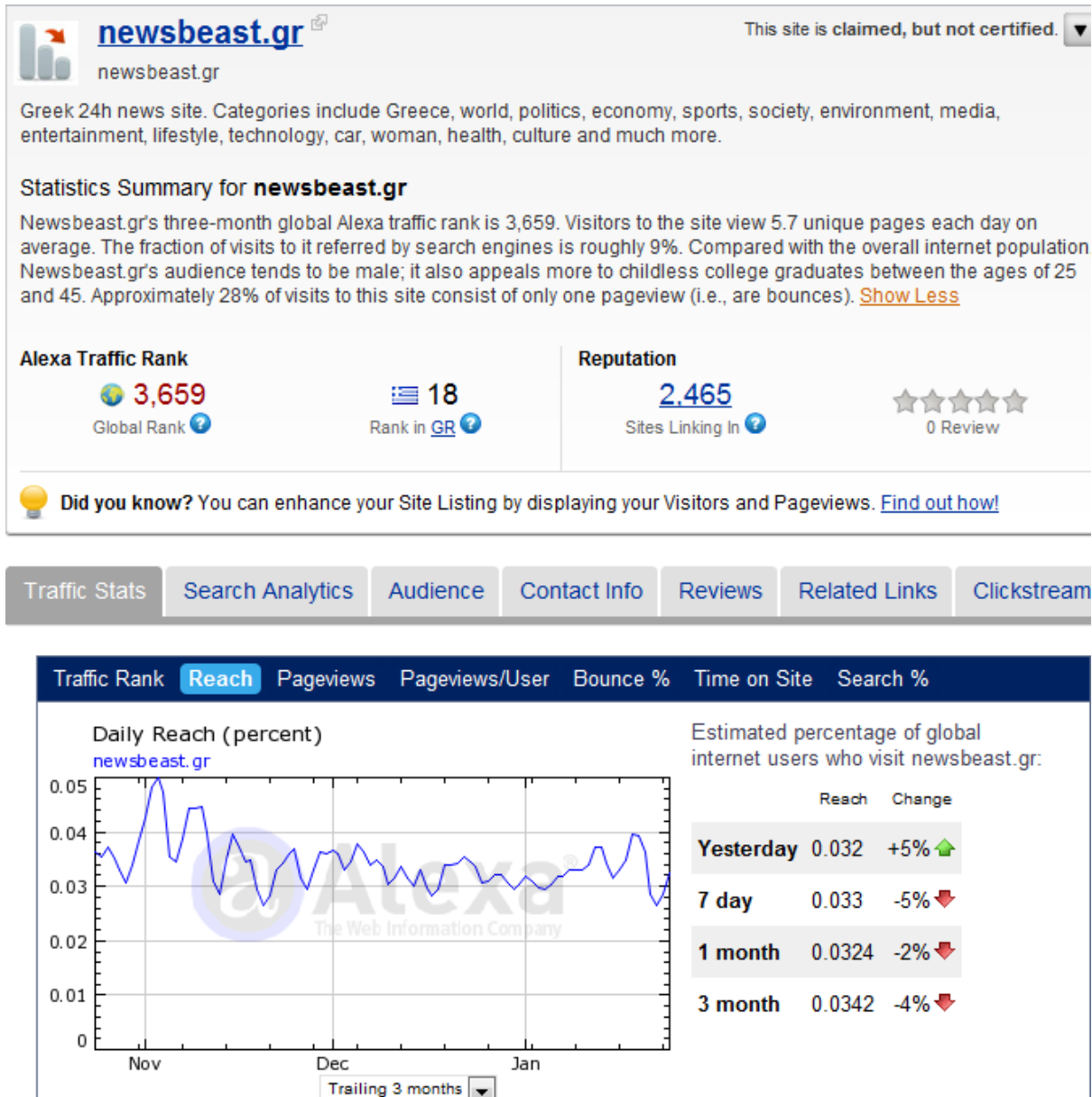


Figure 5-2 Newsbeast.gr in Alexa (Alexa (b), 2012)

Not far in ranking appears protothema.gr. It belongs in rank #20 in Greece according to Alexa statistics and it is an online newspaper. Figure 5-3 shows statistics for this blog in Alexa:

protothema.gr ΠΡΩΤΟ ΘΕΜΑ This site is not certified. ▼

Όλες οι ειδήσεις και τα τελευταία γεγονότα από το ΠΡΩΤΟ ΘΕΜΑ! 24 ΩΡΕΣ!

Statistics Summary for protothema.gr

Protothema.gr is ranked #3,973 in the world according to the three-month Alexa traffic rankings, and visitors to the site view an average of 3.6 unique pages per day. This site is based in Greece. We estimate that 90% of this site's visitors are in Greece, where it has attained a traffic rank of 20. Visitors to Protothema.gr spend about 74 seconds on each pageview and a total of nine minutes on the site during each visit. [Show Less](#)

Alexa Traffic Rank 3,973 Global Rank ?	20 Rank in GR ?	Reputation 2,615 Sites Linking In ?	3 Reviews
----------------------------------------------------------------------------	-----------------------------------------------------------	-------------------------------------------------------------------------	------------------

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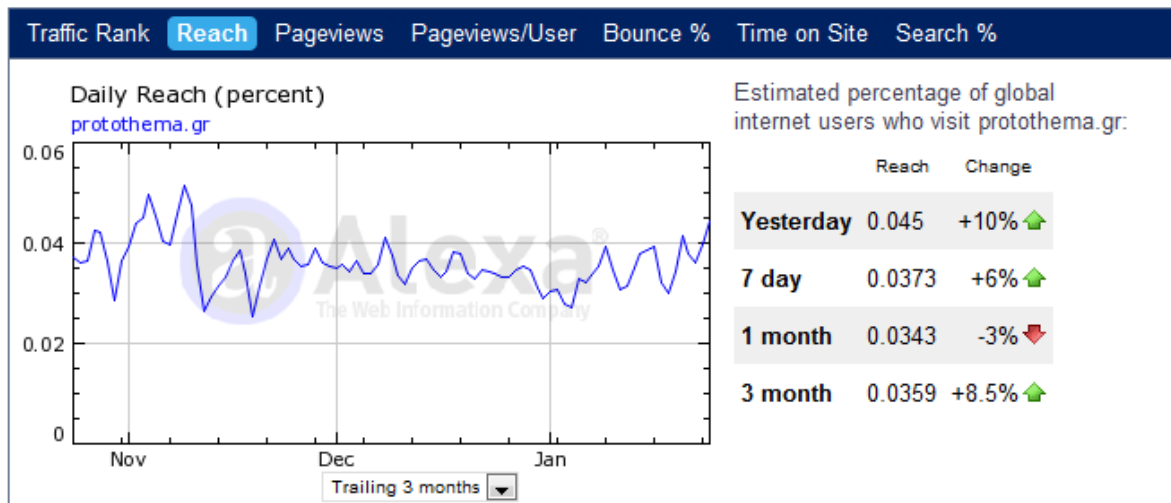



Figure 5-3 Protothema.gr in Alexa (Alexa (c), 2012)


Fourth on the row is a blog dealing with news and issues in the political arena of Greece. It is called news247.gr and is ranked #23. It is depicted in Figure 5-4:


 **news247.gr** News247.gr This site is not certified. ▼

Statistics Summary for news247.gr

News247.gr has a three-month global Alexa traffic rank of 4,346. Relative to the overall population of internet users, this site appeals more to men; its audience also tends to consist of childless college graduates between the ages of 25 and 45. The site's visitors view 3.7 unique pages each day on average. Search engines refer approximately 6% of visits to News247.gr. The site has a bounce rate of roughly 44% (i.e., 44% of visits consist of only one pageview). [Show Less](#)


Alexa Traffic Rank


 **4,346**
Global Rank ?

 **23**
Rank in [GR](#) ?

Reputation

2,383
Sites Linking In ?

 (No reviews yet)

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- Clickstream

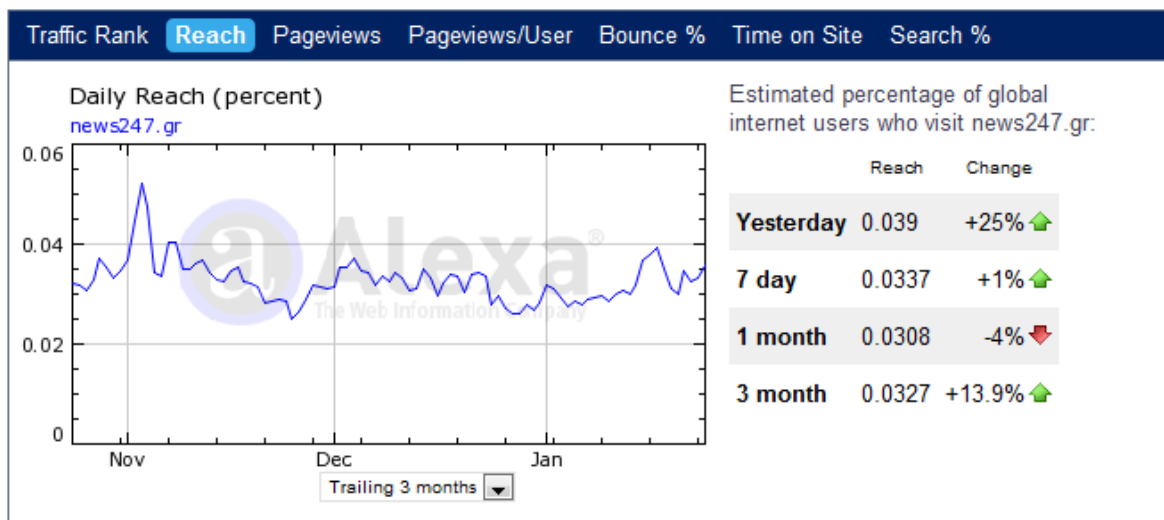


Figure 5-4 News247.gr in Alexa (Alexa (d), 2012)

Next to the previous one, is a Greek online newspaper, Tovima.gr with rank #33 according to the three-month Alexa traffic rankings. It is presented in Figure 5-5:

tovima.gr This site is not certified.

Tovima.gr

Statistics Summary for **tovima.gr**

Tovima.gr is ranked #5,784 in the world according to the three-month Alexa traffic rankings. Approximately 42% of visits to the site are bounces (one pageview only). The time spent in a typical visit to the site is about ten minutes, with 83 seconds spent on each pageview. Search engines refer approximately 13% of visits to this site. Tovima.gr is based in Greece. [Show Less](#)

Alexa Traffic Rank 5,784 <small>Global Rank</small>	33 <small>Rank in GR</small>	Reputation 4.684 <small>Sites Linking In</small>	(No reviews yet)
-------------------------------------------------------------------------	----------------------------------------	----------------------------------------------------------------------	------------------

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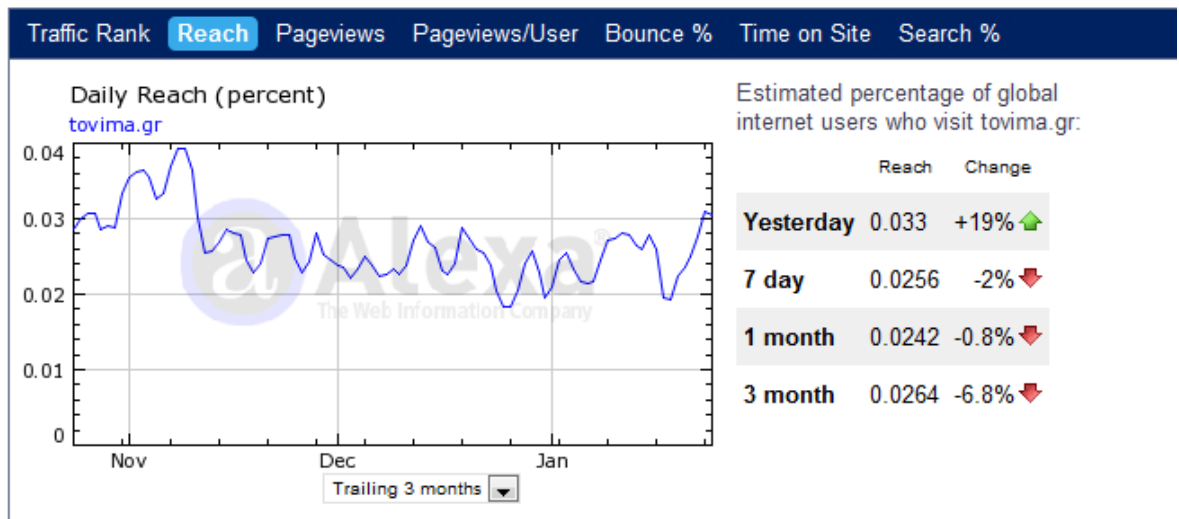


Figure 5-5 Tovima.gr in Alexa (Alexa (e), 2012)

What follows is Figure 5-6 which shows a blog with a great variety of news containing some with political orientation. This blog is called fimes.gr and its rank is #205 in Alexa.

fimes.gr This site is not certified.

Fimes.gr

Statistics Summary for fimes.gr

Fimes.gr has a three-month global Alexa traffic rank of 28,103. The fraction of visits to the site referred by search engines is roughly 26%. Visitors to the site view 4.2 unique pages each day on average. Approximately 41% of visits to the site consist of only one pageview (i.e., are bounces). Compared with internet averages, Fimes.gr appeals more to men; its visitors also tend to consist of childless college graduates browsing from home. [Show Less](#)

Alexa Traffic Rank

28,103
Global Rank

205
Rank in GR

Reputation

551
Sites Linking In

☆☆☆☆☆
(No reviews yet)

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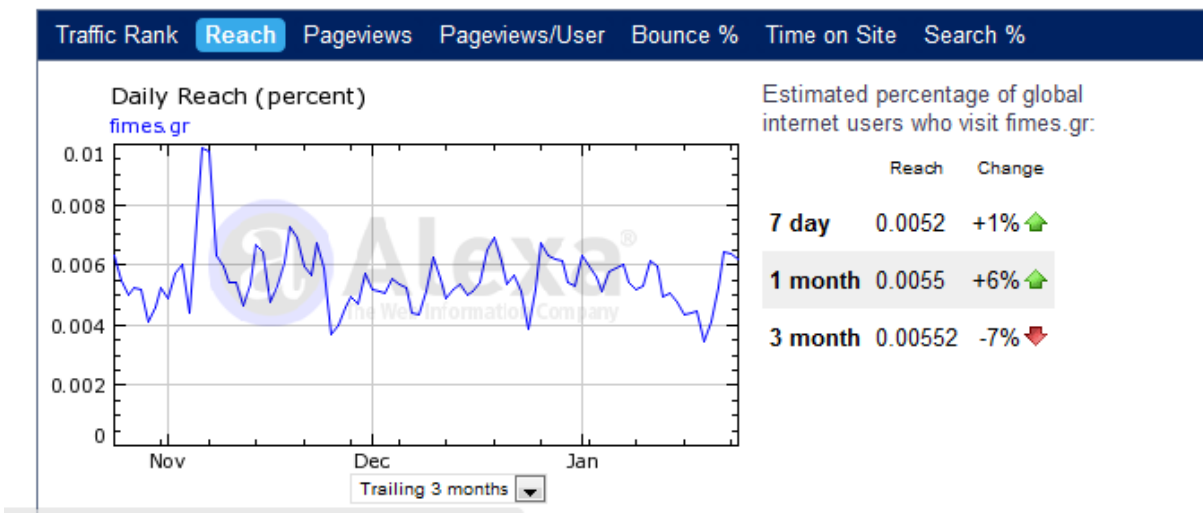


Figure 5-6 Fimes.gr in Alexa (Alexa (f), 2012)

Next in the list appears a blogspot with political news. Its name is press-gr.blogspot.com and its rank in Alexa is #353 according to the three-month Alexa traffic rankings. It is presented in Figure 5-7:

press-gr.blogspot.com This site is not certified.

Press-gr.blogspot.com

Statistics Summary for press-gr.blogspot.com

There are 55,328 sites with a better three-month global Alexa traffic rank than Press-gr.blogspot.com. We estimate that 93% of the site's visitors are in Greece, where it has attained a traffic... [Show More](#)

Alexa Traffic Rank 55,329 Global Rank	353 Rank in GR	Reputation 1,369 Sites Linking In	(No reviews yet)
-----------------------------------------------------------	--------------------------	-------------------------------------------------------	------------------

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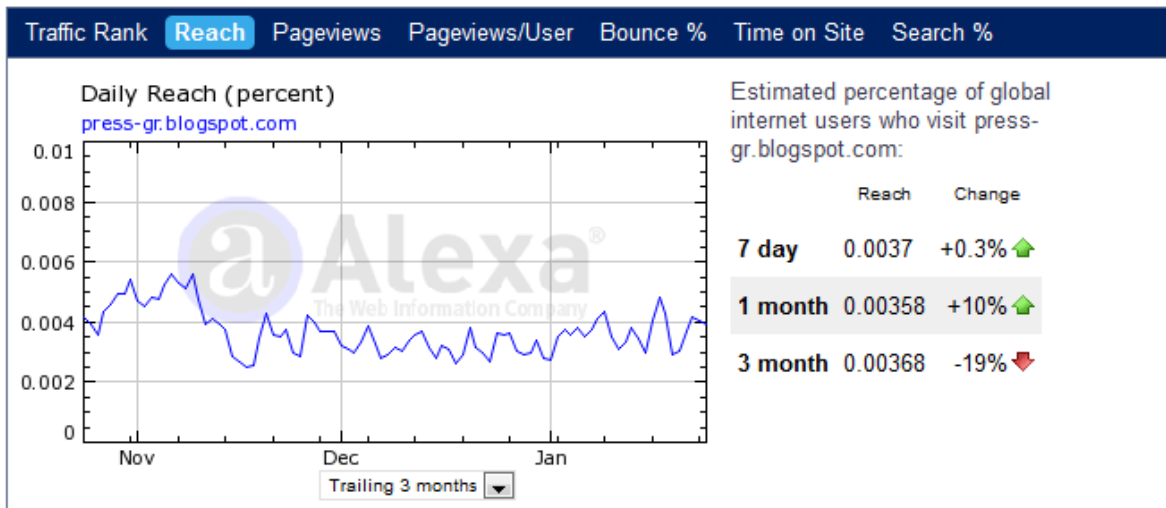


Figure 5-7 Press-gr.blogspot.com in Alexa (Alexa (g), 2012)

Another blog with rank in Alexa is called epikaira.gr. It is a blog with news dealing with politics. It has a #502 ranking in Greece. It is depicted in Figure 5-8:

epikaira.gr This site is not certified.

Epikaira.gr

Statistics Summary for epikaira.gr

Epikaira.gr has a three-month global Alexa traffic rank of 73,225. The fraction of visits to it referred by search engines is about 11%. Approximately 36% of visits to the site consist of only one pageview (i.e., are bounces). Compared with internet averages, the site's audience tends to be male; it also appeals more to highly educated, childless people between the ages of 35 and 55 who browse from home. Visitors to Epikaira.gr spend about four minutes per visit to the site and 46 seconds per pageview. [Show Less](#)

Alexa Traffic Rank

73,225
Global Rank

502
Rank in GR

Reputation

672
Sites Linking In

★★★★★
(No reviews yet)

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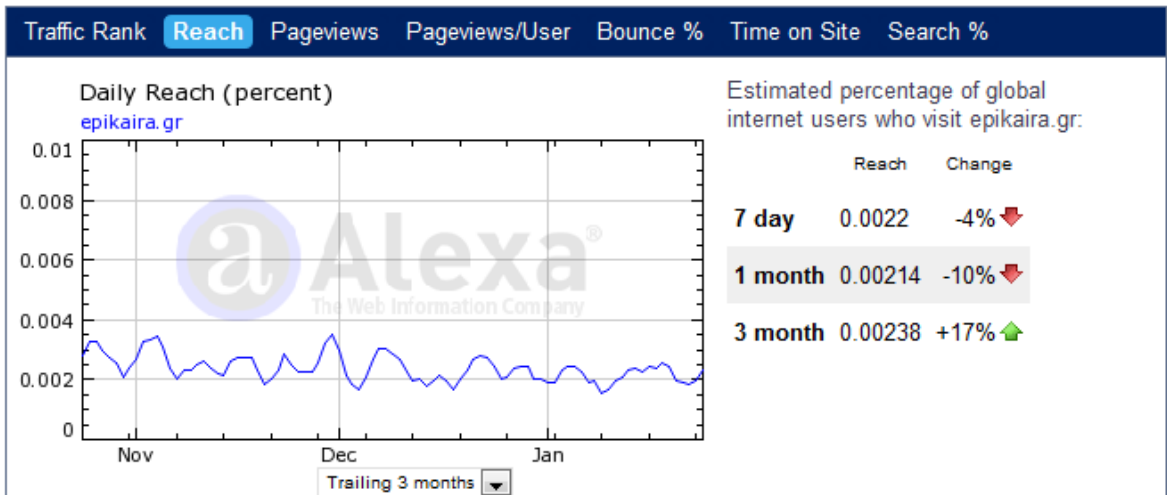


Figure 5-8 Epikaira.gr in Alexa (Alexa (h), 2012)

Last blog with political orientation ranked in Alexa is kafeneio-gr.blogspot.com. Its rank is #570 and is shown in Figure 5-9:

kafeneio-gr.blogspot.com This site is not certified.
 Kafeneio-gr.blogspot.com

Statistics Summary for kafeneio-gr.blogspot.com
 There are 95,385 sites with a better three-month global Alexa traffic rank than Kafeneio-gr.blogspot.com. Visitors to the site spend about 68 seconds on each pageview and a total of five minutes on... [Show More](#)

Alexa Traffic Rank
 95,386 Global Rank
 570 Rank in GR

Reputation
 1,195 Sites Linking In
 (No reviews yet)

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Figure 5-9 Kafeneio-gr.blogspot.com in Alexa (Alexa (i), 2012)

To summarize all the most popular blogs according to Alexa Ranking with their links and ranks, we present them in Table 5-2:

Table 5-2 Most Popular Blogs in Politics

BLOGS	LINKS	RANK
NewsIt.gr	http://www.newsit.gr/	14
Newsbeast.gr	http://www.newsbeast.gr/	18
Protothema.gr	http://www.protothema.gr/	20
News247.gr	http://news247.gr/	23

Tovima.gr	http://www.tovima.gr/	33
Fimes.gr	http://www.fimes.gr/	205
Press-gr.blogspot.com	http://press-gr.blogspot.com/	353
Epikaira.gr	http://www.epikaira.gr/home.html	502
Kafeneio-gr.blogspot.com	http://kafeneio-gr.blogspot.com/	570

5.2.3 Most Popular Facebook Users or Groups in Politics

The tool that we use in order to search and find who the most popular users or groups are focusing on politics in Facebook is Famecount. More specifically, from the category Facebook Stars we choose those that are from Greece and are occupied with politics. Table 5-3 indicates them with their links and the number of :

Table 5-3 Most Popular Facebook Users or Groups in Politics

FACEBOOK USERS/GROUPS	LINKS	FRIENDS
George A. Papandreou	http://www.facebook.com/george.a.papandreou	47114
Skai.gr	http://www.facebook.com/skaigr	45155
PASOK	http://www.facebook.com/pages/%CE%A0%CE%91%CE%A3%CE%9F%CE%9A/17484026282	38039
News247.gr	http://www.facebook.com/news247?ref=pb	33743
Protothema	http://www.facebook.com/pages/httpwwwprotothemagr/117072912198	21992
NEA DHMOKRATIA	http://www.facebook.com/neadmokratia	19451
Eva Kaili	http://www.facebook.com/evakaili.gr?ref=ts	15049
Dora Bakoyannis	http://www.facebook.com/DoraBakoyannis	13263
Anna Diamantopoulou	http://www.facebook.com/anna.diamantopoulou	5001
Kafeneio-gr.blogspot.com	http://www.facebook.com/pages/kafeneio-grblogspotcom/105123799536950?ref=pb	4911

5.2.4 Most Popular Videos in YouTube about Politics

During our search in YouTube about videos with political orientation we found only a few about our selected political issue which is reformation of the Greek Government or elections in 2012. In order to find these videos in YouTube we used the tool Famecount and we ended up in only three videos. We present them with their links in Table 5-4:

Table 5-4 Most Popular YouTube Videos in Politics

YOUTUBE VIDEOS	LINKS	Views
Δήλωση Νέου Πρωθυπουργού Λουκά Παπαδήμου	http://www.youtube.com/watch?v=-7NdO4-ueHI&feature=related	659
ΛΟΥΚΑΣ ΠΑΠΑΔΗΜΟΣ Ο ΝΕΟΣ ΠΡΩΘΥΠΟΥΡΓΟΣ ΤΗΣ ΕΛΛΑΔΑΣ	http://www.youtube.com/watch?v=aB9jH3brtd4&feature=related	1437
NewsIt.gr: Θετική Απήχηση Παπαδήμου	http://www.youtube.com/watch?v=bQsbVIXer44&feature=related	1934

5.3 Sentiment Analysis in Social Media Platforms

In this subchapter we are going to make Sentiment Analysis to Content focusing on Politics. We have selected four Social Media Platforms from which we extracted the users or groups comments about our specific political issue. As a result we will make Sentiment Analysis on comments in each Social Media Platform separately. Moreover, we use in this section the Ground Rules that we have created in Chapter 4 and of course we apply them to all platforms.

5.3.1 The Selected Themes of the Political Issue used for Sentiment Analysis

During the Sentiment Analysis in each platform we will call each author's comments with a number so that we can make pooled results in conclusion about the Ground and General Rules. For example, if comments belong in Facebook then we can have FB1, FB2, etc., if comments belong in Twitter then we can have TR1, TR2, etc., if comments belong in YouTube then we can have YT1, YT2, etc., and last if comments belong in blogs then we can have BG1, BG2, etc.

Also, we will present and a table with the different themes that we selected from the social media platforms about our political issue. In the part of Sentiment Analysis we will present

the selected Social Media Platform, the Number of the Comment, the Number of the Theme in which it belongs and the Content of the Comment so that it is obvious where we refer. For example, FB1:1, TR1:1, YT1:1, BG1:1.

Our sample was 4 Social Media Platforms (Facebook, Twitter, YouTube, and Blogs) with a total of 24 themes and 158 comments with political content. More specifically, we extracted from Facebook 25 comments, from Twitter 44 comments, from Youtube 9 comments and the majority of comments were retrieved from Blogs. We provide a table with all the selected comments in the Appendix. Table 5-5 presents the variety of themes about the political issue that we were interested in.

Table 5-5 The Selected Themes from the Social Media Platforms

Social Media Platform	Number of Theme	Theme
FB	1	Εκλογές τον Οκτώβριο του 2013 προτείνουν 7 Υπουργοί
FB	2	Δήλωση του Εκπροσώπου της ΝΔ κ.Γ.Μιχελάκη για τη νομοθετική κατοχύρωση του δικαιώματος των Απόδημων Ελλήνων, να μετέχουν στις εθνικές εκλογές
FB	3	Παπαδήμος: Δεν υπάρχει ημερομηνία διεξαγωγής εκλογών
FB	4	Νέα Κυβέρνηση πριν από το Πάσχα θέλει η ΝΔ
FB	5	Πρώτο ΘΕΜΑ online: εκλογές το συντομότερο
FB	6	Τελεσίγραφο Παπαδήμου μετά τη Βαβέλ στη Βουλή
FB	7	Α.Σαμαράς: Εκλογές το αργότερο μέχρι τις 8 Απριλίου
TR	1	Κυβέρνηση
TR	2	Εκλογές
TR	3	Παπαδήμος
TR	4	Ανασχηματισμός
TR	5	Εκλογές 2012
TR	6	ΝΔ και Εκλογές
TR	7	ΠΑΣΟΚ και Εκλογές
YT	1	Δήλωση Νέου Πρωθυπουργού Λουκά Παπαδήμου
YT	2	Λουκάς Παπαδήμος Ο Νέος Πρωθυπουργός της Ελλάδας
YT	3	Θετική Απήχηση του Παπαδήμου
BG	1	Εκλογές 2012: Παπαδήμος, δημοσκοπήσεις και

		πανικός
BG	2	Π. Καυής: Εκλογές τον Απρίλιο χωρίς άμεσο ανασχηματισμό
BG	3	Ανασχηματισμός, εκλογές και δημοψήφισμα
BG	4	"Πράσινο φως" από Παπανδρέου για ανασχηματισμό κυβέρνησης
BG	5	"Οι καιροί ου μενεοί": Πρωτοχρονιά 2012, εκλογές 2012
BG	6	Παπαδήμος: Δεν υπάρχει ημερομηνία διεξαγωγής εκλογών
BG	7	Παπαδήμος: Συναίνεση από τα τρία κόμματα
BG	8	Θα τον αφήσουν να κυβερνήσει ή να φύγει; Αποφασισμένος για όλα ο πρωθυπουργός
BG	9	Τελευταία στιγμή δεν αποπέμφθηκε ο Λοβέρδος - Μονόδρομος ο ανασχηματισμός για να μπορέσει να κυβερνήσει ο Παπαδήμος
BG	10	Ανασχηματισμός και κυβέρνηση τεχνοκρατών αλά Ιταλία;
BG	11	"Η ανασχηματισμός με κυβέρνηση 10 υπουργών ή εκλογές αύριο!"
BG	12	Μπεγλίτης: "Είμαστε έτοιμοι για ανασχηματισμό"
BG	13	Αυτή η κυβέρνηση "δεν τραβάει" - Ένα μήνα μετά ανασχηματισμός
BG	14	Ανασχηματισμό ζήτησε ο Γ.Καρατζαφέρης
BG	15	Εκλογές ή ανασχηματισμός; Τι απαντάει ο Πρωθυπουργός σε όσα ζητούν οι Βουλευτές
BG	16	Θέλει Παπαδήμο και μετά τις εκλογές ο Παπακωνσταντίνου
BG	17	Πάγκαλος: "Δεν βλέπω λόγο να προκηρυχθούν εκλογές"
BG	18	Το χρόνο εκλογών καθορίζει το σχεδιάγραμμα Βενιζέλου
BG	19	Εκλογές ως το τέλος Μαρτίου απαιτεί ο Σαμαράς
BG	20	Εκλογές προς το τέλος Απριλίου, το νέο σενάριο
BG	21	Γ.Καρατζαφέρης: "Είναι αυτοκτονία να πάμε σε εκλογές"
BG	22	Εκλογές το συντομότερο
BG	23	Α.Σαμαράς: Πριν από το Πάσχα οι εκλογές
BG	24	Όλα ρευστά για ανασχηματισμό και εκλογές

5.4 Creation of General Rules through Sentiment Analysis of Comments

In this part we make the analysis of the comments that we have selected and from which we will create the General Rules of Opinion Mining with the help of Ground Rules of Opinion.

5.4.1 General Rule #1(Oriented adjectives/nouns/verbs)

TR8:2 is presented in Table 5-6:

Table 5-6 Sentiment Analysis of 1st Comment

Social Media Platform	Number	Theme	Comment
TR	8	2	Σαμαράς: Εκλογές μέσα στο Μάρτιο: Μήνυμα σε όσους προσπαθήσουν να "κωλησιεργήσουν " έστειλε ο πρόεδρος της ΝΔ

This comment consists of one sentence. The words are: “Σαμαράς”, “:”, “Εκλογές”, “μέσα”, “στο”, “Μάρτιο”, “:”, “Μήνυμα”, “σε”, “όσους”, “προσπαθήσουν”, “να”, “κωλησιεργήσουν”, “έστειλε”, “ο”, “πρόεδρος”, “της”, “ΝΔ”.

The first word “Σαμαράς” is a noun especially is the Last Name of Antonis Samaras, current president of New Democracy, with value 0 giving neutral orientation. The second word “:” is punctuation with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The next word “Εκλογές”, is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The “μέσα” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The word “στο” has value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The next word “Μάρτιο” is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The word “:” is punctuation with value “0” giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The next word “Μήνυμα” is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The next word “σε” has value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The word “όσους” is an adjective with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means

neutral orientation. The word “προσπαθήσουν” is a verb with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The “να” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The next word ““κωλησιεργήσουν”” is a verb with not correct spelling. The correct word is ““κωλσιεργήσουν”” value -1 giving negative orientation because it has negative meaning as word. Also, the specific symbol of punctuation has value -1 giving negative orientation too. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “έστειλε” is a verb with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The “ο” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “πρόεδρος” is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “της” has value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. Finally, the last word “ΝΔ” has value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation.

The outcome of this sentence has negative orientation.

What we would like to add at this point is that there are some kinds of words and especially adjectives, nouns and verbs that give to the sentence orientation sometimes positive and sometimes negative because as words they have positive or negative meaning. Analyzing all the authors’ comments, we have found which are these words that are used and give to the sentence orientation. Tables 5-7, 5-8 and 5-9 present, in a more detailed way, the adjectives, nouns and verbs with their orientation.

Table 5-7 Adjectives and their Orientation in Sentiment Analysis

ADJECTIVES					
POSITIVE		NEGATIVE			
Περισσότερος	Μέγιστος	Αποτυχημένος	Δυσβάσταχτος	Απρόβλεπτος	Πράσινος

Καλύτερος	Νοήμονα	Κανένας	Στημένος	Αχάριστος	Γαλάζιος
Σοβαρός	Δημοκρατικός	Αλλήθωρος	Αναγκαστικός	Ταλαίπωρος	Μονομήφιος
Μεγάλος	Οικουμενικός	Λιγότερος	Άχρηστος	Δυστυχισμένος	Λίγος
Ικανός	Γρήγορος	Έσχατος	Αλαζονικός	Ακατάλληλος	Μαύρος
Αξιος		Τραγικός	Εξευτελιστικός	Σαρωτικός	Άραχνος

Table 5-8 Nouns and their Orientation in Sentiment Analysis

NOUNS						
POSITIVE		NEGATIVE				
Σοφός	Ενθουσιασμός	Απώλειες	Κρίση	Κρεμάλες	Μίζα	Τοκογλύφος
Καλό της πατρίδας	Συγκυβέρνηση	Αρνητικό	Χούντα	Αλήτες	Έλλειψη	Φόρος
Εξουσία	Ανθέλληνας	Διαπλεκόμενοι	Παπαδόπουλος	Γουδιά	Γελοιότητες	Καταστροφή
Δικαιοσύνη	Δημοψήφισμα	Τελεσίγραφο	Ανάποδα	Λαθρομετανάστες	Όπλο	Τρόικα
Εμπιστοσύνη	Ισότητα	Φυλακές	Αποχή	Διαφθορά	Αυτοκτονία	Χρέος
Δημοκρατία	Αλληλεγγύη	Τέλος	Θάνατος	Λάθος	Πτώματα	Πίεση
Διαφάνεια	Αξιοκρατία	Πόλεμος	Κλέφτες	Κακό	Χρεοκοπία	Ζιμπάμπουε
Θαύμα	Λύση	Σκάνδαλο	Προδότες	Λαμόγια	Υποταγή	Καντάφι
Υπομονή	Συνεργασία	Άμισθος	ΔΝΤ	Πατριδοκάπηλος	Όλεθρος	
		Παραίτηση	Εξάντληση	Έλεος	Πτώχευση	

Table 5-9 Verbs and their Orientation in Sentiment Analysis

VERBS						
POSITIVE		NEGATIVE				
Ζω	Κερδίζω	Αφανίζω	Εξαθλιώνω	Αποχωρώ	Ξυπνάω	Καταστρέφω
Διασφαλίζω	Σώζω	Λυπάμαι	Βολεύομαι	Χάνω	Φεύγω	Προφυλακίζω
Διαφυλάττω	Χαίρομαι	Αγανακτώ	Βρίζω	Μειώνω	Σκοντάφτω	Κωλυσιεργώ
Δικάζω	Αλλάζω	Διαλύω	Παθαίνω	Αχρηστεύω	Ανέχομαι	Τρομάζω
Στηρίζω	Λύνω	Υπηρετώ	Φταίω	Σιχαίνομαι	Καταλαμβάνω	Φοβάμαι
Ολοκληρώνω	Παρατείνω	Εγκλωβίζομαι	Κινδυνεύω	Δυσκολεύομαι	Παραιτούμαι	Τρέμω
Χειροκροτώ	Θέλω	Ξεφορτώνομαι	Καταψηφίζω	Τρελαίνομαι	(Ξε)πουλάω	
Ελπίζω	Εύχομαι	Επιβάλλω	Ρίχνω	Στήνω	Βιάζομαι	

The General Rule that follows after the Sentiment Analysis of the first comment is:

Adjectives, nouns and verbs which because of their meaning define:

care, hope, power, admiration, strength, loyalty, passion, joy, surprise, happiness, love
→ positive

They have value “+1” giving positive orientation.

irony, sadness, pain, sorrow, denial, delay, uncertainty, hesitation, anger, fear,
loneliness, revenge, hate, darkness → negative

They have value “-1” giving negative orientation.

5.4.2 General Rule #2 (Capital Letters)

FB2:1 is presented in Table 5-10.

Table 5-10 Sentiment Analysis of 2nd Comment

Social Media Platform	Number	Theme	Comment
FB	3	2	Η ΣΗΜΕΡΙΝΗ ΚΥΒΕΡΝΗΣΗ ΔΕΝ ΤΟΥΣ ΕΧΕΙ ΑΝΑΓΚΗ ΤΟΥΣ ΑΠΟΔΗΜΟΥΣ...ΤΗΣ ΦΤΑΝΟΥΝ ΟΙ ΛΑΘΡΟΜΕΤΑΝΑΣΤΕΣ...

This comment consists of two sentences. The first sentence consists of the words: “Η”, “ΣΗΜΕΡΙΝΗ”, “ΚΥΒΕΡΝΗΣΗ”, “ΔΕΝ”, “ΤΟΥΣ”, “ΕΧΕΙ”, “ΑΝΑΓΚΗ”, “ΤΟΥΣ”, “ΑΠΟΔΗΜΟΥΣ”, and “...”. The second sentence consists of the words: “ΤΗΣ”, “ΦΤΑΝΟΥΝ”, “ΟΙ”, “ΛΑΘΡΟΜΕΤΑΝΑΣΤΕΣ”, and “...”.

We will find the orientation of the first sentence, of the second sentence and then the disjunction of the two in order to find the orientation of the total comment.

The first word “Η” is a word with value 0 and gives neutral orientation. The word “ΣΗΜΕΡΙΝΗ” is an adjective with value 0 and gives neutral orientation. The disjunction between these two words gives a neutral orientation and scores 0. The word “ΔΕΝ” is the negation. We have mentioned negation in Table 4-7 which is the Table of Values for finding the orientation. The word “ΤΟΥΣ” is a word with value 0 and gives neutral orientation. The disjunction between this word and the negation gives negative orientation. The word “ΕΧΕΙ” is a verb with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “ΑΝΑΓΚΗ” is a noun with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “ΤΟΥΣ” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “ΑΠΟΔΗΜΟΥΣ” is a noun with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “...” is punctuation with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The first sentence gives negative orientation.

The first word in the second sentence is “ΤΗΣ”, a word with value 0 and gives neutral orientation. The second word of the second sentence is “ΦΤΑΝΟΥΝ”, a verb with value 0

and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. Te third word is “OI”, a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The next word “ΑΑΘΡΟΜΕΤΑΝΑΣΤΕΣ”, is a noun with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The last word “...” is punctuation with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The second sentence gives negative orientation too.

The disjunction between the two sentences gives negative orientation. What we notice in this sentence is that the words were written in Capital Letters. When an author uses Capital Letters it means that he/she wants to express his/her opinion loud and the opinion is always negative giving negative orientation to his/her speech.

The General Rule that follows after the Sentiment Analysis of the comment is:

When a comment is written with Capital Letters it means that the author wants to express his/her opinion loud and the opinion is always negative giving negative orientation to his/her speech.

Capital Letters → negative

They have value “-1” giving negative orientation.

5.4.3 General Rule #3 (Double Punctuation)

FB1:1 is presented in Table 5-11.

Table 5-11 Sentiment Analysis of 3rd Comment

Social Media Platform	Number	Theme	Comment
FB	1	1	γιατί θα ζουν μέχρι τότε???

This comment consists of one sentence. The words of this sentence are: “γιατί”, “θα”, “ζουν”, “μέχρι”, “τότε”, “???”

The first word “γιατί” is a conjunction with value 0 and gives neutral orientation. The word “θα” is a word with value 0 and gives neutral orientation. The disjunction between these two words gives a neutral orientation. The word “ζουν” is a verb with value +1 and gives positive orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The word “μέχρι” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The word “τότε” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one gives a +1 which means positive orientation. Now what we observe is that the next word consists of 3 question marks “???”. The value of a question mark is -1. The author here uses 3 of them which means that he/her wants to give emphasis to the sentence. When we have punctuation in the sentence, and the symbol is used more than one time in the row it acquires double value. In our case, the value of the 3 question marks is -1 and the disjunction between this word and the outcome of the previous one give a -1 which means that the sentence in the end has negative orientation.

The General Rule that follows after the Sentiment Analysis of the Comment is:

If a symbol of punctuation is used more than one time in the row it acquires double value. That happens because the author wants to give emphasis to his/her words. More specifically,

Ερωτηματικό (;) → question

The question mark scores double value “- -1” giving negative orientation.

Θαυμαστικό (!) → exclamation

The exclamation mark scores double value “++1” giving positive orientation or “- -1” giving negative orientation.

Αποσιωπητικά (...) → sentence continues without words giving emphasis

The ellipsis scores double value “- -1” giving negative orientation.

Εισαγωγικά (“ ”) → between them words of someone just like he said

The quotation marks score double value “- -1” giving negative orientation.

5.4.4 General Rule #4 (Exclamation Mark)

FB22:6 is presented in Table 5-12.

Table 5-12 Sentiment Analysis of 4th Comment

Social Media Platform	Number	Theme	Comment
FB	22	6	παραιτήσου και άφησε τη δυκαιοσύνη να δικάσει όλους τους προδότες!!!!!!

This comment consists of two sentences. The first sentence consists of the word “παραιτήσου”. The second one consists of the words: “και”, “άφησε”, “τη”, “δυκαιοσύνη”, “να”, “δικάσει”, “όλους”, “τους”, “προδότες”, “!!!!!!”.

The first word “παραιτήσου” is a verb with value -1 and gives negative orientation.

The word “και” is a conjunction. In this case, the conjunction connects two sentences. This conjunction defines complexity and according to the Ground Rule #5, when the conjunction connects two affirmative sentences then the whole sentence gives a positive orientation or a negative orientation if the two sentences are negative. The first sentence is negative which means that the other sentence is negative too and the whole sentence has negative orientation.

We can analyze the second sentence too in order to confirm the total orientation. The word “άφησε” is a verb with value -1 and gives negative orientation. The word “τη” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “δυκαιοσύνη” is a word with not correct spelling. The exact word is “δικαιοσύνη”, a noun with value +1 and gives positive orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “να” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The word “δικάσει” is a verb with value 0 which means neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “όλους” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The word “τους” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous

one gives a 0 which means neutral orientation. The word “προδότες” is a word with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation.

Now what we observe is that the next word consists of 6 exclamation marks “!!!!!!”. As we have already said when we have more than one symbol in punctuation, its value gets double. This is true and we are able to understand that the author does give emphasis in the sentence. But the symbol is the exclamation mark. If we remember the Ground Rule #6, there are exclamations that have either positive either negative orientation. The exclamation mark gives positive orientation if the total orientation of words in the sentence that it exists is positive. Otherwise, it gives negative orientation. In our case, the orientation of the second sentence is till the exclamation mark is negative with value -1. That means that the orientation of the exclamation mark will be negative and due to the fact that there are 6 of them, the orientation will be double negative with value - -1.

The General Rule that follows after the Sentiment Analysis of the comment is:

The Exclamation Mark gives positive orientation if the total orientation of words in the sentence that it exists is positive. Otherwise, it gives negative orientation.

Θαυμαστικό (!) → total orientation of words positive → positive orientation

The exclamation mark has value “+1” giving positive orientation.

Θαυμαστικό (!) → total orientation of words negative → negative orientation

The exclamation mark has value “-1” giving negative orientation.

5.4.5 General Rule #5 (Allegorical Phrases)

BG67:23 is presented in Table 5-13.

Table 5-13 Sentiment Analysis of 5th Comment

Social Media Platform	Number	Theme	Comment
BG	67	23	Αντωνάκη...Αντωνάκη...οι δημοσκοπήσεις ...είναι τόσο αληθινέςπου βγάζουν μάτι,....

This comment consists of two sentences. The first sentence consists of the words “Αντωνάκη”, “...”, “Αντωνάκη”, “...”, “οι”, “δημοσκοπήσεις”, “...”, “είναι”, “τόσο”, “αληθινές”, “.....”. The second one consists of the words: “που”, “βγάζουν”, “μάτι”, “,”, “...”.

The first word “Αντωνάκη” is a noun and especially a nick name that refers to a First Name of a person. This person specifically is the leader of the New Democracy political party. Nick names like this, are used in order to offend the person they are addressed or to speak ironically about his political actions. As a result, nick names are words with value -1 giving negative orientation.

The second word “...” is punctuation with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “Αντωνάκη” is the same nick name we have seen before with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The “...” is the same punctuation as before with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “δημοσκοπήσεις” is a noun with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “...” is the same punctuation as before with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “είναι” is a verb with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “τόσο” is an adjective with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “αληθινές” is an adjective with value +1 giving positive orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “.....” is punctuation that has been used before with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -” which means negative orientation. The first sentence has negative orientation.

The second sentence is a secondary sentence because it connects with the previous one which is the main sentence through a conjunction that defines completion. The second word of the sentence is “βγάζουν” and the third word is “μάτι”. These two words together make a phrase

that suggests orientation and specifically a negative one. Until now, the second sentence has negative orientation. The next word is “,”, a punctuation with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The last word is “...”, punctuation with negative orientation and value -1. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation.

According to the Ground Rule #5, this conjunction that connects two sentences with negative orientation gives to the whole sentence value “-1” with negative orientation.

Just like the phrase “βγάζουν μάτι”, there are also other phrases that are used in the authors’ comments that give a positive or a negative orientation to the sentence. These phrases are called Allegorical Phrases and are presented in Table 5-14.

Table 5-14 Allegoric Phrases and their Orientation in Sentiment Analysis

Phrases	Orientation
καλό της πατρίδας	Positive
όποιος βιάζεται σκοντάφτει	Negative
πλάκα κάνετε	Negative
go home	Negative
Έλεος	Negative
άντε γεια	Negative
πάρε δρόμο	Negative
χρυσό μου	Negative
ότι ναναι	Negative
πάρε πόδι	Negative
Ουστ	Negative
Ξυπνάτε	Negative
από τζάκι	Negative
να τους πάρουμε με τις πέτρες	Negative
το παίζεις	Negative

βγάζουν μάτι	Negative
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The General Rule that follows after the Sentiment Analysis of the comment is:

Allegorical phrases are used in the authors' comments during speech giving a positive or a negative orientation. Phrases that define:

admiration, joy, surprise → positive

They have value “+1” giving positive orientation.

irony, sadness, denial, delay, uncertainty, hesitation, anger, fear → negative

They have value “-1” giving negative orientation.

5.4.6 General Rule #6 (Nick Names)

From the previous Sentiment Analysis in BG67:23 comment that was presented in Table 5-13 we are able to create one more rule. The General Rule that follows is:

Nick names that are used in comments have as purpose to offend the person they are addressed to or to speak ironically about his political actions. As a result, nick names are words with value “-1” giving negative orientation.

Nick Names → used as offensive words → negative orientation

The nick names have value “-1” giving negative orientation.

5.4.7 General Rule #7 (Colors)

BG67:23 is presented in Table 5-15.

Table 5-15 Sentiment Analysis of 6th Comment

Social Media Platform	Serial Number	Number of Theme	Comment
TR	22	4	Λευκή Επιταγή Γιώργου για ανασχηματισμό

This comment consists of one sentence. The words are: “Λευκή”, “Έπιταγή”, “Γιώργου”, “για” and “ανασχηματισμό”.

The first word “Λευκή” means “white” in English and it is a color with value +1 giving positive orientation. Like other authors’ comments, colors can be used giving positive or negative orientation to the sentence. Black is for example a color with negative orientation. Back to the sentence, the second word “Έπιταγή” is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The next word “Γιώργου” is a noun especially is the First Name of George Papandreou, current president of PASOK, with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The “για” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The last word is “ανασχηματισμό” with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. This whole sentence has positive orientation.

In this part we will make one more Sentiment Analysis with one more comment because in the specific the author makes a parallelism of the colors and the political parties that represent.

BG67:23 is presented in Table 5-16.

Table 5-16 Sentiment Analysis of 7th Comment

Social Media Platform	Serial Number	Number of Theme	Comment
FB	4	2	Υπάρχουν απόδημοι αλλά υπάρχουν και εκδιωγμένοι από τη διαφθορά που εγκαθιδρύσατε εσείς και οι πράσινοι (και λοιποί έγχρωμοι) συνάδελφοί σας. Γιατί να σας ψηφίσει κάποιος; Σε τι αλλάξατε;

This comment consists of three sentences. The first sentence consists of the words “Υπάρχουν”, “απόδημοι”, “αλλά”, “υπάρχουν”, “και”, “εκδιωγμένοι”, “από”, “τη”, “διαφθορά”, “που”, “εγκαθιδρύσατε”, “εσείς”, “και”, “οι”, “πράσινοι”, “()”, “και”, “λοιποί”,

“έγχρωμοι”, “συνάδελφοί”, “σας”. The second one consists of the words: “Γιατί”, “να”, “σας”, “ψηφίσει”, “κάποιος”, “;”. The third sentence consists of the words: “Σε”, “τι”, “αλλάξατε” and “;”.

The first word “Υπάρχουν”, is a verb with value 0 giving neutral orientation. The second word “απόδημοι” is a noun with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “αλλά” is a conjunction that defines opposition giving negative orientation to the whole sentence but we can confirm this. The word “υπάρχουν” is a verb with value 0 giving neutral orientation. The word “και” is a conjunction with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The “εκδιωγμένοι” is a word with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “από” is a word with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “τη” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “διαφορά” is a noun with value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “του” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “εγκαθιδρύσατε” is a verb with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “εσείς” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “και” is a conjunction with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The first sentence has negative orientation. The word “οι” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “πράσινοι” is a word with value -1 giving negative orientation. This happens because this word refers to Pasok which is the dominant political party of Greece and its color is green which in Greek means “πράσινο”. Many authors in their comments are referred to the political parties through the colors that represent

giving orientation to the sentences that they belong. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The next word is “()”, a punctuation with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The next word is “και” a conjunction with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The next word is “λοιποι” a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “έγχρωμοι” is a word that is referred through the color to the other political parties giving negative orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “συνάδελφοί” is a noun with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The word “σας” is a word with value 0 giving neutral orientation. The disjunction between this word and the outcome of the previous one gives a -1 which means negative orientation. The first sentence has negative orientation.

The first word of the second sentence is “Γιατί”, a word with neutral orientation and value 0. The second word is “να”, word with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “σας”, is a word with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “ψηφίσει” is a verb with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The “κάποιος” is a word with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The last word of the second sentence is “;”, a question mark which has value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The second sentence just like the first one has negative orientation.

The first word of the third sentence is “Σε” a word with neutral orientation and value 0. The second word “τι” is a word with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The third

word “αλλάξατε” is a verb with neutral orientation and value 0. The disjunction between this word and the outcome of the previous one gives a 0 which means neutral orientation. The last word is “;”, a question mark, which has value -1 giving negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The third sentence just like the other two has negative orientation.

The disjunction between three negative sentences is a total comment with negative orientation.

This parallelism of the colors with the political parties they represent is obvious. More specifically, we could mention the three colors that match to the greater political parties on Greece. “Green” is the color for Pasok the leader political party, “blue” is the color for New Democracy, the second political party according to the previous elections and “red” is the color of KKE which is the Communist Party of Greece.

The General Rule that follows after these two Sentiment Analyses in the comments is:

Colors are often used in comments giving positive or negative orientation to the sentence. More specifically, we could define that:

white, yellow, pink, orange → positive

They have value “+1” giving positive orientation.

black, gray, brown, red, green, blue, violet → negative

They have value “-1” giving negative orientation.

5.4.8 General Rule #8 (Emoticons)

FB2:1 is presented in Table 5-17.

Table 5-17 Sentiment Analysis of 8th Comment

Social Media Platform	Number	Theme	Comment
FB	2	1	ΧΑ ΧΑ ΧΑ ΑΝ ΘΕΛΟΥΝ ΝΑ ΣΤΗΣΟΥΜΕ ΚΡΕΜΑΛΕΣ...ΚΑΙ ΓΟΥΔΙΑ...ΕΔΩ ΕΙΜΑΣΤΑΙ ?

This comment consists of two sentences. The first sentence consists of the words: “XA XA XA”, “AN”, “ΘΕΛΟΥΝ”, “ΝΑ”, “ΣΤΗΣΟΥΜΕ”, “ΚΡΕΜΑΛΕΣ”, “...”, “ΚΑΙ”, “ΤΟΥΔΙΑ”, “...”. The second sentence consists of the words: “ΕΔΩ”, “ΕΙΜΑΣΤΑΙ”, “?”.

We will find the orientation of the first sentence, of the second sentence and then the disjunction of the two in order to find the orientation of the total comment.

The first word “XA XA XA” is an emoticon. Emoticons are textual portrayals of a writer's mood or facial expression in the form of icons. The emoticons can be positive, negative or neutral. A list of emoticons is provided (List of emoticons, 2011). This specific emoticon means that the author laughs and has value +1 and gives positive orientation. The word “AN” is a conjunction with value “0” and gives neutral orientation. The disjunction between these two words gives a positive orientation and scores +1. The word “ΘΕΛΟΥΝ” is a verb with value +1 and gives positive orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The word “ΣΤΗΣΟΥΜΕ” is a verb with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a +1 which means positive orientation. The word “ΚΡΕΜΑΛΕΣ” is a noun with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The word “...” is punctuation with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “ΚΑΙ” is a conjunction with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “ΤΟΥΔΙΑ” is a noun with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The word “...” is punctuation with value -1 and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. Until now, the first sentence gives negative orientation.

The first word in the second sentence is “ΕΔΩ”, a word with value 0 and gives neutral orientation. The second word of the second sentence is “ΕΙΜΑΣΤΑΙ”. This word does not have correct spelling. The correct word is “ΕΙΜΑΣΤΕ” and is a verb with value 0 and gives neutral orientation. The disjunction between this word and the outcome of the previous one give a 0 which means neutral orientation. The third word is “?”, a question mark with value -1

and gives negative orientation. The disjunction between this word and the outcome of the previous one give a -1 which means negative orientation. The second sentence gives negative orientation too.

The disjunction between the two sentences gives negative orientation.

The General Rule that follows after the Sentiment Analysis of the comment is:

When we have in comments textual portrayals of the author’s mood or facial expression in the form of icons (known as Emoticons), they give orientation. The emoticons can be positive, negative or neutral. Emoticons that define:

laughing, joy, surprise → positive

They have value “+1” giving positive orientation.

irony, sadness, denial, delay, uncertainty, hesitation, anger, fear → negative

They have value “-1” giving negative orientation.

*All the other Emoticons have value “0” giving **neutral** orientation.*

5.5 Statistical Results from Sentiment Analysis

In this subchapter we will present statistical results extracted from the Ground and the General Rules of Opinion.

5.5.1 Aggregative Table of Comments

We present a Table which has as rows the Serial Numbers of the Comments used in Sentiment Analysis and as columns the Ground Rules and the General Rules and the orientation of all the comments. This Table shows which Rules have been used in which comments during the Opinion Mining, using as symbol the (×). From Table 5-18 we extract some statistical results and make finally the conclusions based on the comments.

Table 5-18 Table of Rules and Comments

Comments	GDR #1	GDR #2	GDR #3	GDR #4	GDR #5	GDR #6	GRR #1	GRR #2	GRR #3	GRR #4	GRR #5	GRR #6	GRR #7	GRR #8	Orientation
FB1:1			×						×						Negative
FB2:1		×	×				×	×						×	Negative

Comments	GDR #1	GDR #2	GDR #3	GDR #4	GDR #5	GDR #6	GRR #1	GRR #2	GRR #3	GRR #4	GRR #5	GRR #6	GRR #7	GRR #8	Orientation
FB3:2		×	×				×	×							Negative
FB4:2		×	×		×		×						×		Negative
FB5:2		×	×	×	×		×								Negative
FB6:2		×	×			×									Negative
FB7:2		×	×		×		×					×			Negative
FB8:3		×	×				×								Negative
FB9:3		×	×				×								Negative
FB10:3		×	×		×										Negative
FB11:3		×	×				×								Negative
FB12:3		×	×				×		×		×				Negative
FB13:3		×	×		×										Negative
FB14:3		×	×	×			×		×		×				Negative
FB15:3		×	×		×		×								Negative
FB16:3			×		×		×								Negative
FB17:3		×		×	×										Neutral
FB18:4		×			×										Negative
FB19:4			×				×				×				Negative
FB20:5		×	×		×		×		×						Negative
FB21:6		×	×				×								Negative
FB22:6			×				×		×						Negative
FB23:7		×	×					×							Negative
FB24:7		×	×												Negative
FB25:7		×	×		×		×								Negative
TR1:1			×				×								Negative
TR2:1		×	×				×								Positive
TR3:1		×	×				×								Negative
TR4:1		×	×				×								Negative
TR5:1		×	×				×								Negative
TR6:2		×	×												Negative
TR7:2		×	×												Negative
TR8:2		×	×				×								Negative
TR9:2		×	×												Negative
TR10:2		×	×				×								Positive
TR11:2			×				×								Positive
TR12:2			×				×								Positive
TR13:2			×				×								Negative
TR14:2		×	×				×								Negative
TR15:2		×	×												Negative
TR16:2			×												Neutral
TR17:2		×	×				×								Negative
TR18:2					×										Neutral
TR19:2		×	×				×								Neutral
TR20:3			×				×								Neutral

Comments	GDR #1	GDR #2	GDR #3	GDR #4	GDR #5	GDR #6	GRR #1	GRR #2	GRR #3	GRR #4	GRR #5	GRR #6	GRR #7	GRR #8	Orientation
TR21:3		×	×				×								Negative
TR22:4			×										×		Positive
TR23:4		×	×		×		×								Negative
TR24:4		×	×												Negative
TR25:4		×	×		×		×								Negative
TR26:4		×	×												Negative
TR27:4		×	×				×								Negative
TR28:4			×		×		×								Positive
TR29:4		×	×												Negative
TR30:4		×	×				×	×							Negative
TR31:4		×	×		×		×								Positive
TR32:4			×												Neutral
TR33:4		×	×												Negative
TR34:4		×	×		×										Neutral
TR35:5			×				×								Positive
TR36:5			×				×								Neutral
TR37:5		×	×				×								Negative
TR38:5			×												Neutral
TR39:5		×	×												Neutral
TR40:6	×	×	×		×										Positive
TR41:7	×	×	×		×		×								Positive
TR42:7		×	×	×	×										Negative
TR43:7		×	×		×										Neutral
TR44:7			×												Neutral
YT1:1		×	×				×								Positive
YT2:1		×	×		×		×			×					Negative
YT3:1		×	×				×			×					Positive
YT4:1	×	×	×		×		×	×							Negative
YT5:1		×	×					×	×			×			Negative
YT6:2		×	×				×								Negative
YT7:2		×	×		×		×		×		×				Negative
YT8:2		×	×				×			×					Negative
YT9:3		×	×				×				×				Negative
BG1:1			×		×		×	×							Positive
BG2:2		×	×				×	×							Negative
BG3:2			×				×								Positive
BG4:3	×	×	×		×		×								Negative
BG5:3		×	×		×		×	×					×		Negative
BG6:3		×	×		×		×	×			×				Negative
BG7:3		×	×		×										Negative
BG8:3		×	×	×	×		×		×						Negative
BG9:4		×	×		×		×		×						Negative

Comments	GDR #1	GDR #2	GDR #3	GDR #4	GDR #5	GDR #6	GRR #1	GRR #2	GRR #3	GRR #4	GRR #5	GRR #6	GRR #7	GRR #8	Orientation
BG10:4		×	×		×		×								Negative
BG11:4	×	×	×		×		×								Negative
BG12:4		×	×		×		×								Neutral
BG13:4		×	×		×		×								Positive
BG14:5		×	×				×	×			×		×		Negative
BG15:5		×	×				×		×	×					Negative
BG16:6		×	×		×		×								Negative
BG17:6		×	×				×								Negative
BG18:6		×	×		×		×			×					Negative
BG19:7		×	×		×		×			×					Negative
BG20:8		×	×		×		×				×				Negative
BG21:8		×	×		×										Neutral
BG22:8			×				×	×	×						Negative
BG23:9		×	×				×		×	×					Negative
BG24:9		×	×				×								Negative
BG25:9		×	×		×		×		×	×				×	Negative
BG26:9		×	×		×										Negative
BG27:9		×	×		×		×	×							Negative
BG28:9		×	×												Negative
BG29:10		×	×				×								Neutral
BG30:11		×	×	×			×								Neutral
BG31:12		×	×					×	×	×					Negative
BG32:13		×	×		×		×	×	×						Negative
BG33:13		×	×				×								Negative
BG34:13		×	×		×						×	×			Negative
BG35:14		×									×				Negative
BG36:15		×	×				×								Negative
BG37:15		×	×					×							Negative
BG38:15		×	×		×		×		×						Negative
BG39:15		×	×		×		×								Negative
BG40:16		×	×		×		×								Negative
BG41:16			×		×		×				×				Negative
BG42:16		×	×		×		×			×					Negative
BG43:16		×	×		×		×								Negative
BG44:17		×	×		×			×							Negative
BG45:17		×	×		×						×				Negative
BG46:17									×	×	×				Negative
BG47:17		×	×		×		×								Negative
BG48:17		×	×				×								Negative
BG49:18		×	×		×		×		×	×			×		Negative
BG50:19		×	×				×								Negative
BG51:19		×	×				×		×				×		Negative
BG52:19		×	×		×		×								Negative

Comments	GDR #1	GDR #2	GDR #3	GDR #4	GDR #5	GDR #6	GRR #1	GRR #2	GRR #3	GRR #4	GRR #5	GRR #6	GRR #7	GRR #8	Orientation
BG53:19		×	×		×		×		×	×					Negative
BG54:19			×		×		×								Neutral
BG55:19		×	×		×										Neutral
BG56:19		×	×					×		×	×				Negative
BG57:19		×	×		×		×						×		Negative
BG58:20		×	×		×		×	×							Negative
BG59:21		×	×		×		×			×					Negative
BG60:21			×				×	×	×	×					Negative
BG61:21		×	×		×		×								Negative
BG62:21		×	×		×		×								Negative
BG63:21		×	×		×		×	×	×						Negative
BG64:21		×	×				×								Neutral
BG65:21		×	×		×		×	×	×						Negative
BG66:22		×	×		×		×								Negative
BG67:23		×	×								×	×			Negative
BG68:23			×				×								Negative
BG69:23	×	×	×		×		×						×		Negative
BG70:23			×				×	×				×			Negative
BG71:23		×	×		×		×								Negative
BG72:23		×	×				×	×	×						Negative
BG73:23		×	×				×								Negative
BG74:23		×	×				×		×	×	×				Negative
BG75:23		×	×		×		×								Negative
BG76:23		×	×		×		×		×	×					Negative
BG77:23		×	×		×		×	×							Negative
BG78:23		×	×		×		×								Negative
BG79:23		×	×		×		×								Negative
BG80:23		×	×								×				Negative

5.5.2 Results

In this section, we present some statistical results based on the Table of Rules and Comments that we created.

In Figure 5-10, the Use of the Ground Rules in the Social Media Platforms is presented. We notice that the most used Ground Rules are the Ground Rule #3 with which we define the existence of adjectives, verbs and nouns in the sentences of the comments, Ground Rule #2 with which we present the symbols of punctuation and their orientation and Ground Rule #5 with which we show the conjunctions of modern grammar and their orientation too. Furthermore, Ground Rule #3 and Ground Rule #2 are mostly used in Blogs and in Twitter

and far less in Facebook and YouTube. As for the Ground Rule #1, Ground Rule #4 and Ground Rule #6 are not used almost at all.

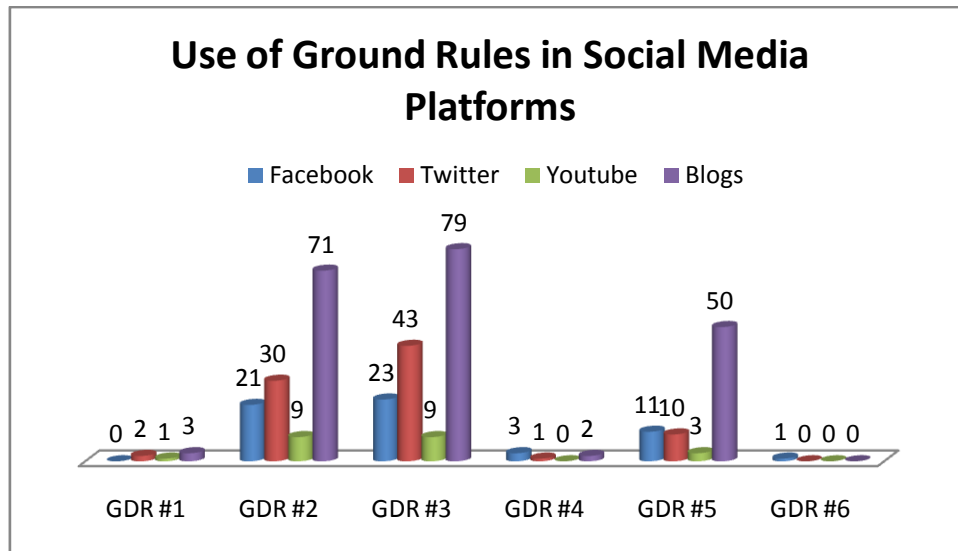


Figure 5-10 Use of Ground Rules in Social Media Platforms

In Figure 5-11, the Total Use of the Ground Rules in all Platforms is depicted. In the total number of comments which are 158, the 154 comments use Ground Rule #3, the 131 comments use Ground Rule #2 and the 74 comments use Ground Rule #5. This figure shows which Ground Rules are the most famous in the total of comments. With other words, the authors write their comments using adjectives, verbs and nouns in order to enrich their content, using punctuation in order to highlight their views during their speech and conjunctions in order to connect the sentences in the comments.

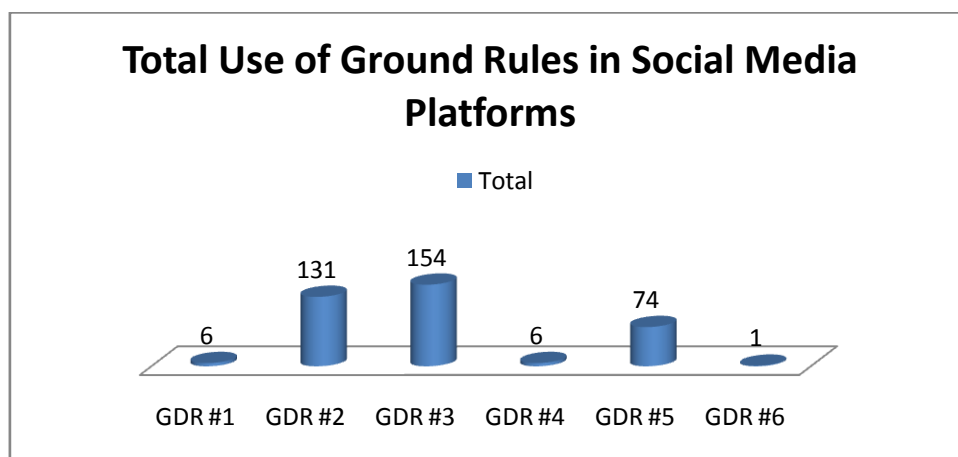


Figure 5-11 Total Use of Ground Rules in Social Media Platforms

In Figure 5-12, the Use of the General Rules in the Social Media Platforms is presented. What is obvious is that General Rule #1 is used in all Social Media Platforms. This Rule is referred to adjectives, nouns and verbs that are already orientated as words. Also, the authors that write in Blogs seem to use the majority of the General Rules. More specifically, General Rule #2 and General Rule #3 are used quite often. These Rules are referred to the use of Capital Letters and to Double Punctuation.

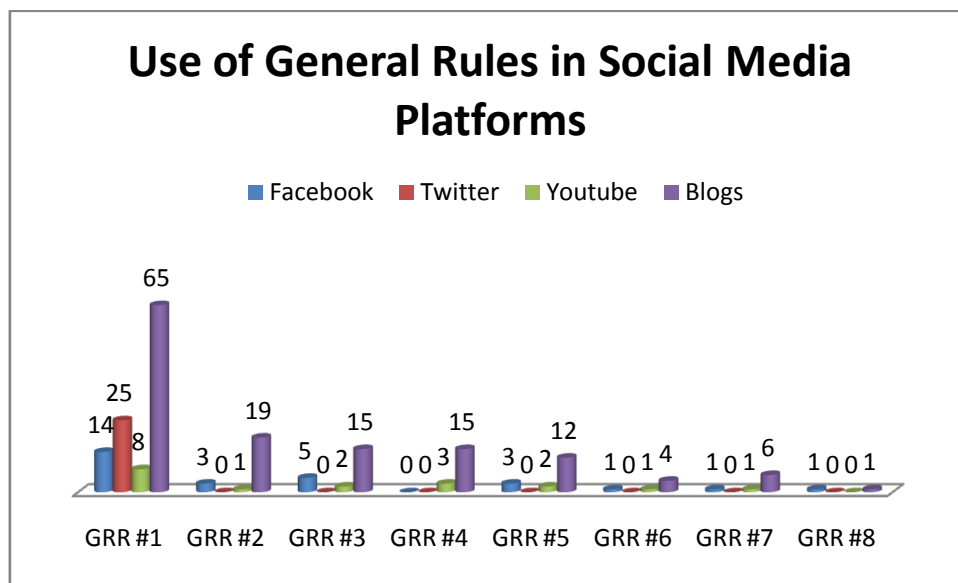


Figure 5-12 Use of General Rules in Social Media Platforms

In Figure 5-13, the Total Use of General Rules in Social Media Platforms is depicted. From the 158 comments, the 112 use Ground Rule #1 and in a smaller degree the authors use Ground Rule #3 and Ground Rule #2. This means that most of the authors use in their comments adjectives, nouns and verbs that have already orientation as words as well as oriented phrases. Additionally, they write in Capital and that shows that they want to express their opinion loud and during their speech they use punctuation with many symbols in the row trying to give emphasis to their views.

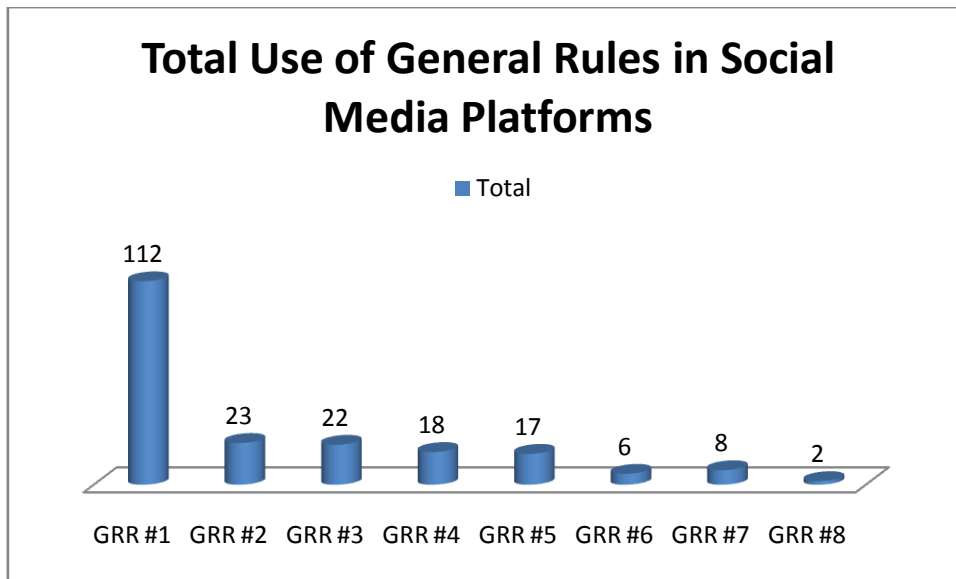


Figure 5-13 Total Use of General Rules in Social Media Platforms

In Figure 5-14, is depicted the Orientation of all the comments that we retrieved from the Social Media Platforms. The comments can be positive, negative or neutral. It is obvious from the statistical graph that the total number of negative comments is much greater than the total number of the positive and the neutral ones. Moreover, we observe that the negative comments in each social media platform are again more than the positive and the neutral. Also, the positive comments are less than the neutral in the 3 of the 4 Social Media Platforms.

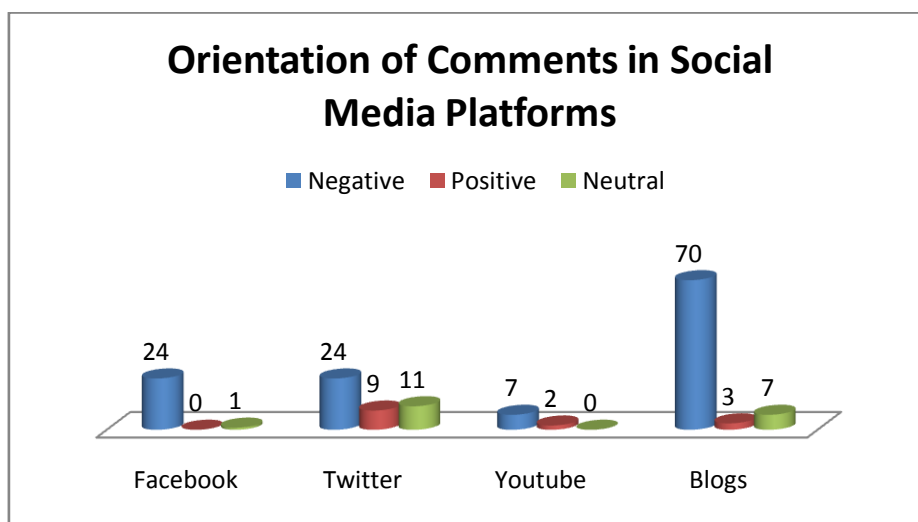


Figure 5-14 Orientation of Comments in Social Media Platforms

We have gathered all the comments that have negative orientation, positive and neutral in all platforms and the outcome is depicted in Figure 5-15. From the total number of comments which is 158, the comments with negative orientation are 125 leaving behind the comments with neutral orientation which are 19 only, and the comments with positive orientation which are 14. A general feeling from this figure is that most of the authors' opinions and views that had been expressed in the Social Media Platforms were negative during the authors' conversations.

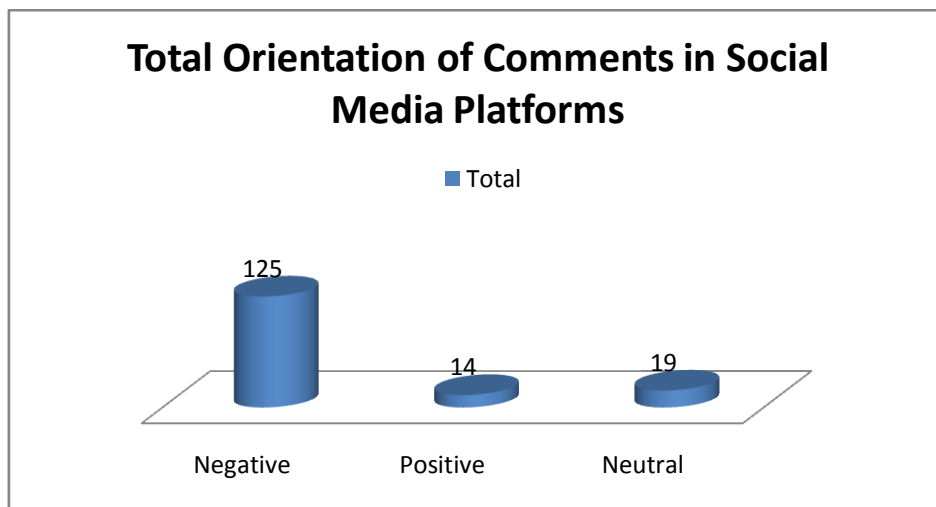


Figure 5-15 Total Orientation of Comments in Social Media Platforms

6 Conclusions and Future Work

In this last part of our research, we present our conclusions and the future steps of work that can be done in our research field.

6.1 Conclusions

The last decade the emergence of the Internet resulted in the rapid development of a new kind of technology, Social Media Platforms. They allow the creation of nodes of individuals, groups, organizations and systems that are related with each other. Companies, governments and organizations have understood their essential role and try to use them in an effective way. In Social Media Platforms people can use content to find other people and information. The high variance of information exchanged in social media includes a high percentage of users' opinions about issues that concern them.

In this study, we tried to analyze and classify the activities and the content of social media platforms for policy making in order to find the general sentiment through Sentiment Analysis. As a first step, we chose a momentous political issue for Greece which was the dilemma "Government reformation or election in 2012 in Greece". Then, we collected from the 4 most popular Social Media Platforms (Facebook, Twitter, YouTube and Blogs), 158 comments from 24 themes that were related to the selected political issue.

The comments that we collected were written in Greek. As a result, we created a new Sentiment Analysis methodology and inspired from the Boolean Algebra and the Modern Greek Grammar as well we managed to succeed two things. Firstly, we created Ground Rules of Opinion and secondly, we found the feeling of the collected comments deciding if the comments' opinion would be positive, negative or neutral.

In a more detailed way, according to our methodology, each word of a comment was translated into a Value in order to be analyzed via Sentiment Analysis. We create 6 Ground Rules of Opinion based on the Modern Greek Grammar, as we mentioned above, assigning the word into Values. As Values we considered +1 for positive orientation, -1 for negative orientation, 0 for neutral orientation and 1 negation. Moreover, we created a truth table named as a Table of Values with the help of Boolean Algebra. In this way, we determined the outcome orientation between the two words. Following the same procedure, it was possible to find sentiment of a sentence, paragraph or document. Based on the 6 Ground Rules of Opinion we conducted Sentiment Analysis to the collected data and we created 8 more

General Rules of Opinion. Some of them were completely new. Others were supplementary to the Ground ones.

The conclusions derived from this study, refer specifically to Ground Rules, General Rules and the Total Orientation of the comments but also to a general feeling. In the part of Ground Rules, the conclusion that we could mention is that the mostly used Rules were Ground Rule #3 with 154 comments, Ground Rule #2 with 131 and Ground Rule #5 with 74. This outcome indicates that the authors write their comments using adjectives, verbs and nouns so that they can enrich the content of their speech, use often punctuation and conjunctions in order to connect the words they use highlighting their views and expressing their opinions more fluently.

Speaking for the General Rules, what we observed was that General Rule #1 was used in all Social Media Platforms appearing in 112 comments. General Rule #3 and General Rule #2 follow with smaller appearance in the comments. The Conclusion from these results is that most of the authors write in Capital using already oriented words like adjectives, nouns, verbs and allegorical phrases. Also, they use quite often symbols of punctuations in the row. These actions indicate that the author's comments want to express their opinion loud and give emphasis to their views as well.

Last but not least, if we would like to refer to the Orientation of all the comments extracted from the Social Media Platforms, we could say that the total number of negative comments was much greater than the total number of the positive and the neutral ones. Specifically, 125 comments were negative leaving behind the comments with neutral orientation which were 19 only, and the comments with positive orientation which were 14. That shows that the conditions that prevailed during the online conversations was most of the time negative.

Closing, the general feeling that comes up from our study and the statistical results is that most of the authors' opinions and views that had been expressed in the Social Media Platforms were negative during the authors' conversations. This outcome lies on the fact that, due to the current situation of our country and the economic crisis, the citizens are not happy with the politicians and the way they act in order to save our country from bankruptcy. Of course, there were some comments with positive orientation and that means that some

citizens agree with the politicians' actions but it is obvious that citizens need a change and an immediate and direct solution of this situation.

6.2 Future Work

As future work of this study, we could mention two basic directions.

The first one refers to the creation of a new Sentiment Analysis tool. Although some Sentiment Analysis tools exist, they do not provide the ability of advanced search options for free. In most cases they are not open-source and cannot be modified, and the most important of all is that they do not support comments written in Greek Language.

This new tool should be open-source and capable of collecting comments in an automated way from the most popular Social Media supporting at the same time five basic languages (English, German, French, Greek, Spanish). An additional functionality of this tool will be the process of the comments and the ability to bring them in a specific format so that all the comments be ready to be used by the subsequent process. For example, it could convert comments written in Greeklsh to Greek or correct the spelling to comments that are written wrong. As we already have mentioned in section 2.7, Policy-Making is a feedback procedure, so the tool can create new rules, edit or remove existing ones, according to the Agenda every time.

Moreover, it should have the ability to analyze data according to the methodology it is chosen every time. Specifically, it needs to support some basic methodologies, e.g. the proposed methodology of this study, but also to provide tools to create new ones. Existing tools like Rapidminer are specialised in data mining generally and not specialized by default in specific domains like Sentiment Analysis. This means that in such tools it is required to rewrite scripts.

Creating this new tool we can overcome existing limitations e.g. poor search options, small datasets, manual data analyse, and we can create collection of a larger volume of data in order to be analysed automatically, testing this way, in real conditions, our proposed methodology.

The second one is to make a more specific Sentiment Analysis based on important persons of the political arena. We could collect comments from different Social Media Platforms

focusing only on their status and their political actions, analyze them and through the comments make conclusions on how citizens actually feel about them and about their work in the political field. Also, we could find out through this research how popular politicians are or what makes them be liked by the citizens or even what are the possibilities to be elected based on their popularity.

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Appendix

Sentiment Analysis in Facebook

In this section we will present Table which contains the comments that have been used for Sentiment Analysis and were retrieved from Facebook.

Table 0-1 The Selected Political Content in Facebook

Social Media Platform	Serial Number	Number of Theme	Comment
FB	1	1	γιατί θα ζουν μέχρι τότε???
FB	2	1	ΧΑ ΧΑ ΧΑ ΑΝ ΘΕΛΟΥΝ ΝΑ ΣΤΗΣΟΥΜΕ ΚΡΕΜΑΛΕΣ...ΚΑΙ ΓΟΥΔΙΑ...ΕΔΩ ΕΙΜΑΣΤΑΙ ?
FB	3	2	Η ΣΗΜΕΡΙΝΗ ΚΥΒΕΡΝΗΣΗ ΔΕΝ ΤΟΥΣ ΕΧΕΙ ΑΝΑΓΚΗ ΤΟΥΣ ΑΠΟΔΗΜΟΥΣ...ΤΗΣ ΦΤΑΝΟΥΝ ΟΙ ΛΑΘΡΟΜΕΤΑΝΑΣΤΕΣ...
FB	4	2	Υπάρχουν απόδημοι αλλά υπάρχουν και εκδιωγμένοι από τη διαφθορά που εγκαθιδρύσατε εσείς και οι πράσινοι (και λοιποί έγχρωμοι) συνάδελφοί σας. Γιατί να σας ψηφίσει κάποιος; Σε τι αλλάξατε;
FB	5	2	Προσπαθείτε να γλιτώσετε από τα μονοψήφια νούμερα και κάνετε το ένα λάθος μετά το άλλο. Οι απόδημοι γνωρίζουν περισσότερα από μας. Ξέρουν δλδ. Κι αυτά που δεν βγάζουν στη δημοσιότητα οι κάθε είδους Ψυχάρηδες.
FB	6	2	και πώς θα διασφαλιστεί ότι τα νούμερα που θα δώσουν τα προξενεία και οι πρεσβείες θα είναι τα πραγματικά; προσοχή, προσοχή
FB	7	2	που είναι το κακό; έλληνες είναι και αυτοί...αλλά φοβάστε τον πάτο..πασοκάκια....
FB	8	3	Τρέμουν στη σκέψη των πρόωρων εκλογών...
FB	9	3	τι να τις κάνουμε τις εκλογές, πάλι τα ίδια λαμόγια θα βγείτε. Τον θάνατο σας θέλουμε κλέφτες
FB	10	3	σιγά μην αφήσει την καρέκλα πάνω που τη ζέστανε...και γιατί να την αφήσει αφού εμείς καθόμαστε και τους κοιτάμε ?

FB	11	3	Εδώ και τώρα εκλογές. Κυβέρνηση από το λαό για το λαό. Όχι τραπεζίτες και οι προδότες του ΔΝΤ. Μήπως φοβούνται κάτι? Τη νέα κυβέρνηση, μήπως κάνει πλακάκια προς ανατολάς και αποκηρύξει το χρέος? Γιατί τόοοοση πίεση για υπογραφές και εξάντληση τετραετίας?
FB	12	3	Για ποια εξάντληση της τετραετίας μιλάει; Πάει καλά; Μήπως πραγματικά πιστεύει ότι εξελέγη; Ας τον ξυπνήσει κάποιος, έλεος με όλα τα Κούλα που ακούμε! Και κυρίως ανεχόμαστε!!
FB	13	3	Σιγά να μην γίνουν ποτε εκλογές... Και ο Μουμπαρακ τους είχε καθήσει στο σβέρκο καμιά 30ρια χρόνια
FB	14	3	Όσα περισσότερα προλάβουν να (ξε)πουλήσουν οι σοφοί (;) για το "καλό της πατρίδας"...
FB	15	3	Γιατί να φύγει άλλωστε; ο Παπαδόπουλος κατέλαβε την εξουσία και έμεινε 7 χρονάκια. Αυτουνού του τη δόσαμε στο πιάτο και δηλώσαμε απόλυτη υποταγή, γιατί να μη τη χαρή λίγο παραπάνω;
FB	16	3	Alitarades skabete to mnima sas kai den to kserete
FB	17	3	δηλαδη καλυτερα ενας εκλεγμενος από τζακι αριστοκρατης παρα τεχνοκρατης από Μ.Ι.Τ. κ με δημοσιο υπαλληλο πατερα;
FB	18	4	Για ποιο πάσχα όμως Αντώνη;
FB	19	4	Οποιος βιάζετε σκοντάφτει
FB	20	5	και μετα; ξανα εκλογές! αφήστε τα αυτά!! Σας έχουμε βαρεθεί και εσάς!! Πήρατε ένα στυλό και νομίζετε τα ξέρετε όλα!!!
FB	21	6	Το δικό μας τελεσίγραφο ακόμα δεν το έλαβες κ.Παπαδήμο. Παρετήσου τώρα.
FB	22	6	παραιτήσου και άφησε τη δικαιοσύνη να δικάσει όλους τους προδότες!!!!!!
FB	23	7	ΕΛΑ; ΠΟΙΟΣ ΗΡΘΕ; ΜΙΛΗΣΕ ΚΑΝΕΙΣ;
FB	24	7	κατσε ρε σαμαρα δεν κανεις για

			τετοια μην το παιδευεις.
FB	25	7	Καλά λέει κ πολύ αργά θα είναι 9 απρ. Θα έχουν γεμίσει οι φυλακές με λαμόγια μέχρι τότε, χρειαζόμαστε εκλεγμένη από το λαό κυβέρνηση για να τα "ρυθμίζει" όλα υπέρ του λαμόγιου.

Sentiment Analysis in Twitter

In this section we will present Table which contains the comments that have been used for Sentiment Analysis and were retrieved from Twitter.

Table 0-2 The Selected Political Content in Twitter

Social Media Platform	Serial Number	Number of Theme	Comment
TR	1	1	Δεν δίνουν ψήφο εμπιστοσύνης στην κυβέρνηση δύο βουλευτές του ΠΑΣΟΚ
TR	2	1	Μπακογιάννη: Στηρίζουμε την κυβέρνηση Παπαδήμου
TR	3	1	101 Στελέχη του ΠΑΣΟΚ: Καταψηφίστε την κυβέρνηση Παπαδήμου
TR	4	1	ΝΔ: "Η κυβέρνηση να ολοκληρώσει το έργο της"
TR	5	1	Παπαρήγα: Ο λαός να ρίξει άμεσα τη νέα κυβέρνηση
TR	6	2	Παπαδήμος: Δεν υπάρχει ημερομηνία διεξαγωγής εκλογών
TR	7	2	Παπαδήμος: Δεν υπάρχει ημερομηνία διεξαγωγής εκλογών: Συζητιέται το μέλλον του 13ου και 14ου μισθού
TR	8	2	Σαμαράς: Εκλογές μέσα στο Μάρτιο: Μήνυμα σε όσους προσπαθήσουν να "κωλησιεργήσουν" έστειλε ο πρόεδρος της ΝΔ
TR	9	2	Α.Σαμαράς: "Πριν από το Πάσχα οι εκλογές"
TR	10	2	Η υλοποίηση του PSI παρατείνει τη θητεία Παπαδήμου. Εκλογές μετά το Πάσχα σχεδιάζει το Μαξίμου
TR	11	2	Εκλογές τον Απρίλιο θέλει ο Παπαδήμος

TR	12	2	Εκλογές πριν από το Πάσχα θέλει η ΝΔ
TR	13	2	Φεύγει πριν από τις εκλογές ο Γιώργος
TR	14	2	"Οι εκλογές τρομάζουν το οικονομικό κατεστημένο"
TR	15	2	Βενιζέλος: "Η χώρα δε μπορεί να πάει σε εκλογές όσο διαπραγματεύεται το PSI"
TR	16	2	Εκλογές προς το τέλος Απριλίου το νέο σενάριο
TR	17	2	Οι "4" συμφωνούν: Δεν είναι λύση οι εκλογές
TR	18	2	Μετά το Πάσχα ίσως γίνουν εκλογές
TR	19	2	Επτά Υπουργοί προτείνουν εκλογές το 2013: Πρόταση επτά Υπουργών να στηθούν κάλπες τον Οκτώβριο του 2013.
TR	20	3	Τέλος τα σενάρια για παράταση της κυβέρνησης Παπαδήμου βάζει ο Σαμαράς
TR	21	3	Παπούλιας σε Παπαδήμο: "Σου κάνουν πόλεμο"
TR	22	4	Λευκή Επιταγή Γιώργου για ανασχηματισμό
TR	23	4	Παραίτηση Βενιζέλου και ανασχηματισμός - Ομάδα βουλευτών του ΠΑΣΟΚ ζητού να φύγουν οι δέλφινοι από την κυβέρνηση
TR	24	4	Ερχεται ανασχηματισμός..και πολύ σύντομα...
TR	25	4	Πότε έλυσε οποιοδήποτε πρόβλημα ένας ανασχηματισμός και τον χρησιμοποιούν όλες οι κυβερνήσεις σαν επικοινωνιακή πανάκεια;
TR	26	4	Μαζεύουν υπογραφές για να γίνει ανασχηματισμός!
TR	27	4	Σαρωτικός ανασχηματισμός εν όψει; και λοιπόν;
TR	28	4	Ελπίζω αν όντως γίνει ανασχηματισμός αυτή τη φορά να προκύψει σοβαρή κυβέρνηση
TR	29	4	Ανασχηματισμός, αλλαγές σε εκλογικό νόμο, καθορίζουν την "αναμέτρηση" στο ΠΑΣΟΚ
TR	30	4	Το σκάνδαλο της ΕΛΣΤΑΤ φέρνει Ανασχηματισμό: Θέμα ημερών θεωρείται πλέον ο ανασχηματισμός

			της κυβέρνησης Παπαδήμου
TR	31	4	Ο Καρατζαφέρης σέρνει το χορό και οι Σαμαράς - Παπανδρέου ακολουθούν! Εκλογές το φθινόπωρο, ανασχηματισμός εν όψει!
TR	32	4	Ανασχηματισμός στην κυβέρνηση
TR	33	4	Ανασχηματισμός στην κυβέρνηση - Δεν τα βρήκαν για εκλογές, μισθούς και συντάξεις οι αρχηγοί
TR	34	4	Ο ανασχηματισμός είναι συνταγματικό δικαίωμα του πρωθυπουργού (αλλά θα αποφασίσει ο Σαμαράς)
TR	35	5	Μεγάλο Προβάδισμα στη Νέα Δημοκρατία
TR	36	5	Εκλογές τον Οκτώβριο του 2013 προτείνουν 7 Υπουργοί
TR	37	5	ΝΔ: Εκλογές στις 8 Απριλίου ή αποχωρούμε από την κυβέρνηση
TR	38	5	Στον δρόμο προς τις εκλογές
TR	39	5	Η μόνη λύση είναι οι εκλογές (με τα άλλα απλώς χάνουμε χρόνο)
TR	40	6	Πρωτόππαπας: "ΝΑΙ" στην κυβέρνηση συνεργασίας με ΝΔ και Παπαδήμο και μετά εκλογές
TR	41	7	Συγκυβέρνηση ΠΑΣΟΚ - ΝΔ προκρίνει ο Χ.Πρωτόππαπας: Ναι στη συγκυβέρνηση με τη ΝΔ και μετά εκλογές
TR	42	7	Τα ποσοστά του ΠΑΣΟΚ είναι τόσο χαμηλά που, που και στις εκλογές για νέο πρόεδρο του κόμματος ΝΔ θα βγει
TR	43	7	Ανοίγει θέμα συγκυβέρνησης ΠΑΣΟΚ - ΝΔ και μετά τις εκλογές
TR	44	7	Εκλογές τον Οκτώβριο του 2013 προτείνουν δύο αναπληρωτές υπουργοί και πέντε υφυπουργοί του ΠΑΣΟΚ

Sentiment Analysis in YouTube

In this section we will present Table which contains the comments that have been used for Sentiment Analysis and were retrieved from YouTube.

Table 0-3 The Selected Political Content in YouTube

Social Media Platform	Serial Number	Number of Theme	Comment
YT	1	1	Έπιτέλους ένας σοβαρός άνθρωπος!
YT	2	1	Εάν κανείς θέλει να ανατιληφθεί τι περίπου θα σημαίνει η πρωθυπουργία ΛΠ είναι καλο να απαντήσει στα εξής 1) Ποια η σχέση του ΛΠ ως διοικητή της Τράπεζας Ελλάδας με την έγκριση μεταφοράς τεράστιων ποσών από τα ασφαλιστικά ταμεία στο ΧΑΑ το 1999 πριν από την κατάρρευση; 2) Ποια η σχέση του ΛΠ με τα GreekStatistics του δημόσιου χρέους από την κυβέρνηση Σημίτη προκειμένου να ενταχθεί η χώρα στην Ευρωζώνη; 3) Σε ποιον ανήκει η Τράπεζα της Ελλάδας; Είναι κρατική ή ιδιωτική τράπεζα;
YT	3	1	Εννοείται!
YT	4	1	Ο ΠΑΠΑΔΗΜΟΣ ΗΤΑΝ ΑΜΙΣΘΟΣ ΟΙΚΟΝΟΜΙΚΟΣ ΣΥΜΒΟΥΛΟΣ ΤΟΥ ΠΑΠΑΝΔΡΕΟΥ ΓΙΑ ΤΟ 2010, ΑΡΑΓΕ ΑΥΤΟΣ ΤΟΥ ΕΔΩΣΕ ΤΙΣ ΣΥΜΒΟΥΛΕΣ ΓΙΑ ΤΗ ΔΙΑΧΕΙΡΙΣΗ ΤΗΣ ΟΙΚΟΝΟΜΙΚΗΣ ΚΡΙΣΗΣ? Ο ΠΑΠΑΝΔΡΕΟΥ ΕΙΝΑΙ ΦΑΝΕΡΟ ΟΤΙ ΕΚΕΤΕΛΕΙ ΞΕΝΕΣ ΕΝΤΟΛΕΣ. ΠΟΙΟΣ ΜΑΣ ΕΓΓΥΑΤΑΙ ΟΤΙ Ο ΠΑΠΑΔΗΜΟΣ ΔΕΝ ΕΙΝΑΙ ΕΚΕΤΕΛΕΣΤΗΣ ΞΕΝΩΝ ΕΝΤΟΛΩΝ? ΟΧΙ ΠΑΝΤΩΣ ΑΥΤΟΙ ΠΟΥ ΤΟΝ ΠΡΟΤΕΙΝΑΝ...
YT	5	1	Βάλανε το ΥΠΑΛΛΗΛΑΚΙ ΤΩΝ ΣΙΩΝΙΣΤΩΝ ΤΡΑΠΕΖΩΝ για πρωθυπουργό!!!
YT	6	2	milaei rio arga k apo tn thanato...
YT	7	2	Ένας τοκογλύφος είναι και τίποτα άλλο εύχομαι να ξυπνήσουμε και να τους πάρουμε όχι με τις πέτρες αλλά με τα μαδέρια, και οι 300 είναι προδότες!!!
YT	8	2	Μείωσε τους φόρους! Πες στον κόσμο για το σχέδιο "δραχμή". Είναι

			ακόμα νωρίς.
YT	9	3	ΜΕΓΑΛΗ ΑΠΟΔΟΧΗ ΠΑΠΑΔΗΜΟΥ? ΠΛΑΚΑ ΚΑΝΕΤΕ

Sentiment Analysis in Blogs

In this section we will present Table which contains the comments that have been used for Sentiment Analysis and were retrieved from Blogs.

Table 0-4 The Selected Political Content in Blogs

Social Media Platform	Serial Number	Number of Theme	Comment
BG	1	1	ΠΟΙΑ ΕΙΝΑΙ ΤΑ ΟΙΚΟΝΟΜΙΚΑ ΠΟΛΙΤΙΚΑ ΣΥΜΦΕΡΟΝΤΑ ΠΟΥ ΕΠΙΘΥΜΟΥΝ ΚΥΒΕΡΝΗΣΗ ΠΑΠΑΔΗΜΟΥ ΠΟΙΟΙ ΚΑΛΑΝΑΡΧΕΣ ΠΟΙΟΙ ΕΚΔΟΤΕΣ ΜΑΣ ΕΙΝΑΙ ΓΝΩΣΤΟΙ ΤΗΝ ΛΥΣΗ ΘΑ ΔΩΣΕΙ Ο ΛΑΟΣ ΜΕ ΕΚΛΟΓΕΣ ΚΑΙ ΜΟΝΟΝ ΜΕ ΕΚΛΟΓΕΣ
BG	2	2	<i>ΑΧΙΟΘΡΥΝΙΤΟΣ, ΚΑΝΕΝΑ ΑΛΛΟ ΣΗΛΙΟ!</i>
BG	3	2	<i>Τελικά το να είσαι ανθέλλην είναι θέμα γενετικής επιστήμης</i>
BG	4	3	Όχι, δεν είμαστε ικανοί να στείλουμε μηνύματα. Δε μας το επιτρέπει το ίδιο το μέσο, που είναι εντελώς ακατάλληλο για αποστολή κάθε είδους μηνυμάτων. Το ύστατο όπλο δεν ξέρω ποιο είναι, πάντως σίγουρα δεν είναι η κάλπη. Έχουμε τόσο εξοικειωθεί με αυτό το όπλο, και τα τρωτά του σημεία είναι τόσο γνωστά σε όλους μας, που πρακτικά έχει αχρηστευθεί.
BG	5	3	ΕΓΩ ΑΔΕΛΦΙΑ ΕΧΩ ΣΙΧΑΘΕΙ ΤΟ ΠΟΛΙΤΙΚΟ ΚΑΘΕΣΤΗΜΕΝΟ ΤΟ ΜΟΝΟ ΠΟΥ ΤΟΥΣ ΕΝΔΙΑΦΕΡΕΙ ΕΙΝΑΙ ΗΤΣΕΠΗ ΤΟΥΣ ΚΑΙ Η ΚΑΡΕΚΛΑ ΓΙΑ ΜΑΣ ΠΟΥ ΗΖΩΗ ΜΑΣ ΕΧΕΙ ΔΥΣΚΟΛΕΨΕΙ ΠΕΡΑ ΒΡΕΧΗ.ΑΛΛΑ ΠΡΕΠΕΙ ΝΑ ΚΑΤΑΛΑΒΟΥΜΕ ΟΤΙ ΣΤΟ ΧΕΡΙ ΜΑΣ ΕΙΝΑΙ ΝΑ ΤΟ ΑΛΛΑΞΟΥΜΕ ΜΑΥΡΟ ΚΑΙ ΑΡΑΧΝΟ ΣΤΟΥΣ 300 .ΟΙ ΤΥΧΕΣ ΜΑΣ ΜΟΝΟ ΣΕ ΑΞΙΟΥΣ

BG	6	3	ΟΙ ΕΚΛΟΓΕΣ ΔΕΝ ΘΑ ΛΥΣΟΥΝ ΚΑΝΕΝΑ ΠΡΟΒΛΗΜΑ ΟΥΤΕ ΤΑ ΔΕΦΤΑ ΘΑ ΓΥΡΙΣΟΥΝ ΠΙΣΩ . 35ΧΡΟΝΙΑ ΟΙ ΚΟΜΜΑΤΙΚΟΙ ΣΤΡΑΤΟΙ ΚΑΙ ΤΟ ΥΠΑΡΧΟΝ ΕΚΛΟΓΙΚΟ ΣΥΣΤΗΜΑ ΘΑ ΑΝΕΒΟΚΑΤΕΒΑΖΕΙ ΑΥΤΟΥΣ ΤΟΥΣ ΔΥΟ.ΤΑ ΣΠΛΑΧΝΑ ΤΟΥΣ ΘΑ ΤΟΥΣ ΡΙΧΝΟΥΝ .ΕΜΠΡΟΣ ΑΝ ΕΧΕΤΕ ΚΟΤΣΙΑ ΕΝΙΑΙΟ ΜΙΣΘΟΛΟΓΙΟ ΙΔΙΩΤΙΚΟΥ ΚΑΙ ΔΗΜΟΣΙΟΥ ΤΟΜΕΑ , ΑΡΣΗ ΜΟΝΙΜΟΤΗΤΑΣ,ΚΟΙΝΟ ΕΡΓΑΣΙΑΚΟ ΚΑΙ ΣΥΝΤΑΞΙΟΔΟΤΙΚΟ ΣΥΣΤΗΜΑ ,ΑΡΣΗ ΒΟΥΛΕΥΤΙΚΗΣ ΑΣΥΛΙΑΣ ,ΣΤΗΝ ΔΙΚΑΙΟΣΥΝΗ ΟΛΟΙ ΟΙ ΔΙΑΠΛΕΚΟΜΕΝΟΙ ,ΠΟΘΕΝ ΕΣΧΕΣ ΕΠΙΘΕΩΡΗΤΩΝ ,ΕΦΟΡΙΑΚΩΝ, ΤΕΛΩΝΕΙΑΚΩΝ,ΚΛΠ. ΟΥΤΕ ΤΟ ΔΝΤ ΧΡΕΙΑΖΟΤΑΝΕ ΚΥΡΙΕ ΤΖΕΦΡΥ ΚΑΚΑΛΑ ΧΡΕΙΑΖΟΝΤΑΙ ΚΑΙ ΛΙΓΟ ΜΥΑΛΟ ΠΟΥ ΔΕΝ ΕΧΕΙΣ, Η ΕΙΣΑΙ ΣΕ ΔΙΑΤΕΤΑΓΜΕΝΗ ΥΠΗΡΕΣΙΑ ΑΠΟ ΤΟ ΑΦΕΝΤΙΚΟ ΣΟΥ ΤΟΝ ΟΜΠΑΜΙΑ. ΑΝΤΕ ΠΑΡΕ ΚΑΙ ΤΗΝ ΜΑΜΑΣΟΥ ΜΑΖΙ ΚΑΙ ΓΟΗΟΜΕ ΠΡΙΝ ΣΕ ΠΑΡΟΥΝ ΜΕ ΤΙΣ ΠΕΤΡΕΣ.
BG	7	3	Η τεταρτη εξοδος και η ασφαλεστερη ειναι αεροπλανο και νυχτα για τη λιβυη...
BG	8	3	το δημοψηφισμα το θεωρω μία λύση. Αν και ποιό θα είναι το ερώτημα του δημοψηφίσματος και πως θα διατυπωθεί, παίζει το μέγιστο ρόλο .Ο ανασχηματισμός είναι πάντα το μετέωρο βήμα πριν τις αναγκαστικές εκλογές .Όσο για εκλογές αυτή την στιγμή ?? Είμαστε ικανοί σαν λαός να στείλουμε μηνύματα ? Ή θα βρούμε μία καλή ευκαιρία να πάμε την βόλτα μας στις ταβέρνες .Θα αρχίσουμε να λέμε ανοησίες για αποχή? Ή θα πάμε ως νοήμονες άνθρωποι και θα χρησιμοποιήσουμε το ύστατο όπλο ?
BG	9	4	Ποιος εισαι ρε μεγαλε και δινεις και πρασινο Φως.????? Η μονη λυση ειναι να του χαρισουμε ενα Ποδηλατο να μας αφησει ησυχους.

BG	10	4	<p>Αλήθεια θα τρελεθούμε τελείως σ' αυτή τη χώρα. Η κ. Γιαννακά δεν χειροκροτούσε με ενθουσιασμό κάθε απόφαση και πράξη της κυβέρνησης; Μια η κ. Γιαννακά, μια ο αφηνιασμένος για εξουσία κ. Χρυσοχοϊδης θα μας κάνουν να πιστέψουμε ότι αυτοί ήταν απλοί παρατηρητές όλο αυτό το διάστημα. Κι όμως, ο τελευταίος είναι ακόμα υπουργός Ανάπτυξης, κι ας μην έχει να επιδείξει ούτε μία επένδυση, κι ας μην έχει προχωρήσει το ΕΣΠΑ. Δυστυχώς, ο ΓΑΠ εγκλωβίστηκε ανάμεσα σε άχρηστους, με λίγες εξαιρέσεις, συνεργάτες και η ευθύνη του συνίσταται ότι δεν τους ξεφορτώθηκε όταν έπρεπε.</p>
BG	11	4	<p>Το αρνητικό για τον Παπανδρέου είναι ότι να έπρεπε από την αρχή να επιβάλει την άποψη για ολιγομελές σχήμα και όχι πάλι εκ των υστέρων να τρέχει για διορθώσεις . όλα του πήγαν ανάποδα αλλά συνεβαλε και αυτός .</p>
BG	12	4	<p>Το ΠΑΣΟΚ είναι και θα είναι και στο μέλλον το μεγάλο κόμμα της ελληνικής κεντροαριστεράς, το σοσιαλδημοκρατικό κόμμα που, όπως και στον υπόλοιπο δυτικό δημοκρατικό κόσμο, αποτελεί τον εναλλακτικό πόλο εξουσίας του κοινοβουλευτικού συστήματος. Το κεκτημένο αυτό της Ελληνικής Δημοκρατίας, να λειτουργεί ομαλά με την εναλλαγή δύο μεγάλων δημοκρατικών κομμάτων στην εξουσία, είναι εξαιρετικά πολύτιμο, για να απεμποληθεί ειδικά στις σημερινές συνθήκες κρίσης. Το ΠΑΣΟΚ ασφαλώς θα δοκιμασθεί σκληρά και ίσως υποστεί πρόσκαιρα μεγάλη υποχώρηση της δύναμής του στις επερχόμενες εκλογές, γιατί ήταν αυτό στο οποίο έλαχε η διαχείριση της φοβερής οικονομικής κρίσης, που και το ίδιο, όπως και η Ν.Δ., προκάλεσε. Όμως αυτό δεν σημαίνει ότι πρέπει να αποδεχθεί την παρακμή και τη διάλυσή του. Είναι, γι' αυτό, άμεση ανάγκη ο κ. Παπανδρέου να δρομολογήσει της διαδικασίες της διαδοχής του και της δυναμικής ανασυγκρότησης του κόμματος. Η Ελλάδα δεν μπορεί και δεν πρέπει να αφεθεί έρμαιο στην ακυβερνησία και στην κοινωνικοπολιτική ανισορροπία που θα προκύψει από την ενδεχόμενη πολυδιάσπαση της κεντροαριστεράς, αν δεν επιβιώσει το ΠΑΣΟΚ. Ούτε άλλωστε μπορεί να βασισθεί η</p>

			<p>χώρα στην ανεργία και απρόβλεπτη συμπεριφορά κομμάτων και κομματιδίων της αριστεράς. Το ΠΑΣΟΚ δεν είναι ιδιοκτησία ούτε φέουδο κανενός. Είναι και θα είναι μεγάλο λαϊκό και πολυσυλλεκτικό κόμμα, που διασφαλίζει σε θεσμικό επίπεδο τη λειτουργία του δημοκρατικού πολιτεύματος.</p>
BG	13	4	<p>Θεωρώ ότι το Πασόκ με επι κεφαλής τον Γιώργο Παπανδρέου έδωσε την μάχη των μαχών να κρατήσει τη χώρα όρθια και παρά τις μεγάλες απώλειες(και δεν εννοώ τις κομματικές) και την κρισιμότητα της κατάστασης φαίνεται να την κέρδισε. Όταν πολλοί ήταν αυτοί που μας τράβαγαν το χαλί κάτω από τα πόδια. Και όχι μόνο το δικό μας αλλά και ολόκληρης της Ευρώπης έτσι όπως την ονειρευτήκαμε. Ελπίζω οι επόμενες κινήσεις να δώσουν οξυγόνο χρόνου και ορθού λόγου τόσο στην κυβέρνηση Παπαδήμου όσο και στην πολιτική πρόταση της κεντροαριστεράς για δημοκρατία, βιώσιμη ανάπτυξη και κοινωνική δικαιοσύνη σε εθνικό και ευρωπαϊκό επίπεδο</p>
BG	14	5	<p>ΣΤΗΝ ΚΡΕΜΑΛΑ ΟΛΟΙ ΑΥΤΟΙ ΠΟΥ ΚΑΤΕΣΤΡΕΨΑΝ ΤΗΝ ΧΩΡΑ ΠΡΑΣΙΝΗ-ΓΑΛΑΖΙΑ ΚΑΙ ΜΑΥΡΗ ΣΥΜΜΟΡΙΑ..ΕΠΙΤΕΛΟΥΣ ΝΑ ΠΑΡΕΙ Ο ΛΑΟΣ ΤΗΝ ΤΥΧΗ ΣΤΑ ΧΕΡΙΑ ΤΟΥ ΔΕΝ ΕΧΟΥΜΕ ΑΝΑΓΚΗ- ΔΕΝ ΘΕΛΟΥΜΕ..ΕΠΑΓΓΕΛΜΑΤΙΕΣ ΣΩΤΗΡΕΣ..ΕΠΙΤΕΛΟΥΣ ΔΕΝ ΕΙΝΑΙ ΑΛΛΑΖΟΝΙΚΟ ΧΥΔΑΙΟ ΕΞΕΥΤΕΛΙΣΤΙΚΟ ΚΑΠΟΙΟΙ ΠΟΥ ΣΕ ΚΑΤΕΣΤΡΕΨΑΝ ΝΑ ΕΡΧΟΝΤΑΙ ΩΣ ΤΙΜΗΤΕΣ ΠΑΝΤΩΝ.. ΚΑΙ ΝΑ ΘΕΛΟΥΝ ΜΕ ΝΑ ΣΕ ΣΩΣΟΥΝ? ΕΛΕΟΣ..ΠΟΤΕ ΠΙΑ ΝΔ-ΠΑΣΟΚ ΛΑΟΣ ..ΚΑΙ ΟΛΑ ΤΑ ΕΞΑΠΤΡΕΡΥΓΑ ΤΟΥΣ..</p>
BG	15	5	<p>ΟΠΩΣ ΤΟ 1975 ΔΙΚΑΣΤΗΚΕ Η ΧΟΥΝΤΑ ΑΠΟ ΤΟΝ ΠΑΠΑΔΟΠΟΥΛΟ ΜΕΧΡΙ ΤΟΝ ΑΠΛΟ ΑΣΤΥΝΟΜΙΚΟ, ΠΡΕΠΕΙ ΜΕΤΑ ΤΙΣ ΕΚΛΟΓΕΣ ΦΕΤΟΣ, Η ΝΕΑ ΚΥΒΕΡΝΗΣΗΣ ΝΑ ΠΡΟΦΥΛΑΚΙΣΗ ΚΑΙ ΝΑ ΔΙΚΑΣΗ, ΟΛΑ ΑΥΤΑ ΤΑ ΠΟΛΙΤΙΚΑ ΚΑΙ ΜΗ ΚΑΘΑΡΜΑΤΑ , ΠΟΥ ΕΞΑΘΛΙΩΣΑΝ ΤΟΝ ΕΛΛΗΝΙΚΟ ΛΑΟ !! ΕΙΝΑΙ ΗΘΙΚΟΙ ΑΥΤΟΥΡΓΟΙ ΓΙΑ ΧΙΛΙΑΔΕΣ ΑΥΤΟΚΤΟΝΙΕΣ, ΘΑΝΑΤΩΝ ΚΑΙ ΔΙΑΦΟΡΩΝ ΑΣΘΕΝΕΙΩΝ ΠΟΥ</p>

			ΠΡΟΗΛΘΑΝ ΑΠΟ ΤΗΝ ΟΙΚΟΝΟΜΙΚΗ ΕΞΑΘΛΙΩΣΗ ΤΗΣ ΕΛΛΑΔΟΣ !!!!
BG	16	6	Είσαι σίγουρος; Κι αν δηλαδή πάλι φάτε τη γιούχα του αιώνα την 25η Μαρτίου θα βγάλετε κι άλλο δημοψήφισμα απ' το μανίκι;
BG	17	6	Καθαρά Δικτατορικό το πολίτευμα..στον Παπαδήμο ο λαός του έδωσε την αρμοδιότητα να είναι στην Βουλή και να παίρνει αποφάσεις ; σαν να μου φαίνεται βολεύεται στην θέση που βρίσκεται και στα παχουλά χρήματα που εισπράττει..θέλει να κάνει τους μόνιμους κατοίκους της Ελλάδας (ημεδαπούς-αλλοδαπούς) να ζουν στην ευρωπαϊκή Ζιμπάμπουε.
BG	18	6	Εκλογές?!!!! Τι λαϊκίστικες συνήθειες είναι αυτές! Άκου εκεί εκλογές! Εδώ έχουμε δουλειές, σοβαρά πράγματα ... ε κ. τραπεζίτη μου? Εξ άλλου τι να τις κάνεις τι εκλογές,... άσε που μπορεί να έχουμε και απρόβλεπτα αποτελέσματα με αυτό τον αγάριστο λαό.... γκάλοπ και πολύ σας είναι
BG	19	7	Αφου ειναι ετσι,γιατι δεν συγκροτηθηκε "Οικουμενικη" κυβερνηση και παρεμειναν οι ιδιοι κατα το μεγαλυτερο ποσοστο(ΠΑΣΟΚ 39-ΛΑΟΣ 4-ΝΔ 4) που δημιουργησαν την οικονομικη και κοινωνικη εξαθλιωση? Πως γινεται να ειναι τωρα ικανοι και αξιοι να επιτελεσουν το εργο για το οποιο "κοβονται" τωρα και δεν ηταν οταν ηταν κυβερνηση? Οι 4 του ΛΑΟΣ και οι 4 της ΝΔ που προστεθηκαν εκανα την διαφορα? Ταλαιπωρη και δυστυχισημενη πατριδα τι σουμελε να απθεις απο τους προδοτες που εξεθρεψες !!!!!!!!
BG	20	8	Άντε γεια ρε Παπαδήμο που μας το παίζεις και πρωθυπουργός υπάλληλος εισαι της Τροίκας και του ΔΝΤ...μην μας πουλάς πρωτοχρονιάτικα τρέλα...άντε να γίνουν εκλογές να πάρεις δρόμο εσύ και η παρέα σου
BG	21	8	η μόνη εμπλοκή σε αυτό το σήριαλ είναι ότι δεν κάνετε εκλογές. Κάντε εκλογές τώρα και θα δείτε πως ο λαός θα λύσει όλα σας τα προβλήματα.
BG	22	8	θα φύγει;;; ΘΑ ΦΥΓΕΙ ΘΑ ΦΥΓΕΙ!!!!!!!
BG	23	9	Παντως εμεις δεν εχουμε δει οσο καιρο κυβερναει ο Παπαδημος κανενα κυβερνητικο εργο...(εντολες εκτελει ο κυριος αυτος)...τι μας λειι αφηστε με να κυβερνησω...ποιον και τι να κυβερνησει, μαλλον για το σκαφος του

			θα εννοει δεν εξηγηται αλλιως!!!
BG	24	9	Υπομονηηηη... τωρα ξεκινησε , οριστε ερχονται νεες μειωσεις και νεοι φοροι
BG	25	9	χαχαχα...καλο ,αλλα σε ολους τους λαους η υπομονη εχει και τα ορια της...εμεις ως ποτε οεο!!!
BG	26	9	για αυτο επρεπε να κανουμε οτι κ οι ιταλοι...
BG	27	9	ΓΙΑΤΙ ΕΙΝΑΙ ΑΛΛΗΘΩΡΟΣ.ΤΑΙΡΙΑΖΕΙ ΜΕ ΤΟ ΣΤΙΛ ΤΗΣ ΥΠΑΡΧΟΥΣΑΣ ΚΥΒΕΡΝΗΣΗΣ (λεμε τωρα)
BG	28	9	Γιατί οι άλλοι τί ήταν;
BG	29	10	Οπότε θα έχουμε 3 αρχηγούς κομμάτων που θα βρίζουν στηρίζοντας την κυβέρνηση Παπαδήμου. Το βρίσκω απόλυτα λογικό και λειτουργικό.
BG	30	11	Γιατί να αρκείσαι στα λιγότερα όταν μπορείς να έχεις περισσότερα; Άσε τις αντιπροεδρίες και γίνε πρόεδρος να μας σώσεις.
BG	31	12	θα ανα-σχηματι-στείτεΓΕΝΙΚΩΣ !!!!!
BG	32	13	Δεν έχει τέτοια πρέπει να πάρει απόφαση ο ελληνικός λαός ότι κάνετε είναι αντίθετο του συντάγματος του κράτους και ο λαός δεν ψήφησε κανένα Παπαδήμα και κανέναν ότι γουστάρετε από την στιγμή που είσαι ανίκανη είναι ώρα να αποφασίσουμε εμείς ποιος θα είναι ο νέος πρωθυπουργός και όχι εσύ για τα συμφέροντα σας..... οι Έλληνες ξύπνησαν!!!!
BG	33	13	Ανίκανοι όλοι τους..
BG	34	13	Παπαδήμε, χρυσό μου, σταμάτα να μας πληκτρολογείς τα προβλήματα του τόπου και προσπάθησε να κυβερνήσεις. Κι ο Γιωργάκης κάπως έτσι ξεκίνησε.
BG	35	14	Οτι ναναι.....
BG	36	15	Ο ίδιος ο Γ. Παπανδρέου κρατάει όμως κλειστά τα χαρτιά του. Μπερδευτηκε ο αρθρογραφος, δεν εχει καν χαρτια, ουτε ανοικτα ουτε κλειστα...
BG	37	15	ΚΑΙ ΠΟΙΟΥΣ ΘΑ ΒΑΛΕΙΣ ΡΕ ΓΙΩΡΓΟ ΑΣΤΟ ΕΚΛΟΓΕΣ.
BG	38	15	εκλογές ή σφαίρες δεν του λέτε καλύτερα ;ένα μπιτόνι βενζίνης δίπλα σε αναμένη φωτιά είναι όλη η χώρα ,μα καλά τυφλοί είστε όλοι στο πασόκ ή όλοι εμείς οι άλλοι έχουμε παραισθήσεις;;

BG	39	15	Τα πολιτικά πτώματα εξοφλούν τις επιταγές τους, εκτελώντας πειθήνια τις άνωθεν διαταγές, πριν μπουν στον καταψύκτη της ιστορίας, από όπου σαν ζόμπι θα κάνουν μία απόπειρα να ζαναβγούν.
BG	40	16	Ένα μικρό θαύμα θα ζητήζω απ' το Θεό αυτή χρονιά ... Να μην ξαναδώ και να μην ξανακούσω τον Παπακωνσταντίνου, το ΓΑΠ, τον Παπαδήμο, τον Πάγκαλο κλπ. Σε παρακαλώ θεέ μου κάνε το θαύμα σου
BG	41	16	ας μεινει ο παπαδημος στο φιναλε το θεμα ειναι εσυ κ οι αλλοι του πασοκ να παρετε ποδι κ να σχηματιστει μια κυβερνηση με 10-15 ατομα οπως στην ιταλια
BG	42	16	Εγω θελω να παθεις οτι επαθαν ο Τσαουσεσκου και ο Κανταφι. Γινεται ? Και μαρτυς μου ο θεος μετα θα κερασω ολη τη γειτονια μου!
BG	43	16	E bebea, afou ton krathse gia na oloklhrwsh tis business tou afentikou tou... na meinei o LP, na ton xanakanei ypourgo na oloklhrwsei to xeroulhma tw n ELPE, DEPA, DESFA...
BG	44	17	ΚΑΙ ΕΓΩ ΔΕΝ ΒΛΕΠΩ ΛΟΓΟ ΝΑ ΕΙΣΑΙ ΑΝΤΙΠΡΟΕΔΡΟΣ ΚΥΒΕΡΝΗΣΗΣ ΑΛΛΑ...ΔΕΝ ΤΟ ΚΑΝΩ ΘΕΜΑ
BG	45	17	Το ξέρεις βέβαια ότι θα βλέπεις τη Βουλή με το κυάλι γι' αυτό και τα λες αυτά ...
BG	46	17	βρε ουστ!!!!
BG	47	17	"Η κυβέρνηση «χαίρει ευρύτατης πολιτικής και κοινωνικής εμπιστοσύνης»" Ηλίθιος δεν είναι και σίγουρα δεν θεωρεί τους Κινέζους ηλίθιους. Μπορεί κάποιος να μου πει γιατί λειι τέτοιες βλακειίες και σε ποιούς απευθίνεται ο αντιπροεδρος μιας Χούντας με μονοψήφιο ποσοστό οπαδών? .
BG	48	17	Μίλησε το συνώνυμο της Δημοκρατίας και της Διαφάνειας Πόσο ακόμη θα βιάζει τα έσχατα όρια της ανοχής ?
BG	49	18	Ξερουν οτι θα τους μαυρισει ο κοσμος και το τραβανε χρονικα ολοι μαζί οσο μπορουνε με ελαφρα πηδηματακια και ανεφερομαι σε ολους Σαπίλααααα!!!!
BG	50	19	Φταίει ο Μητσοτάκης που τον άφησε να υπάρχει. Και ο χοντρός που επανέφερε στο προσκήνιο αυτόν τον κακιασμένο αναγκέφαλο.

BG	51	19	Ρε παιδιά πραγματικά μαυριστε τον στις εκλογές. Αυτός ο άνθρωπος δείχνει πιο επικίνδυνος και απο τον Τζεφρι. Το μόνο που λεε, το μόνο που σκέφτεται είναι οι εκλογές. Πως θα γίνει να πατωσει μπάς και ηρεμισουμε λίγο??? και εκ των προτέρων ντροπή σε όσους ψηφίσουν τα κόρεσμενα κόμματα της σημερινά βουλής.
BG	52	19	Εδώ η Ελλάδα κινδυνεύει να μην υπάρχει κι εσύ σκέφτεσαι τις εκλογές... Τραγικός!
BG	53	19	Εχει καταντησει γραφικος ο ανθρωπος! Εδω ο κοσμος χανεται και αυτος ασχολειται με τις εκλογες και μονο και πως θα γινει κυβερνηση. Ελεος πια αηδια εχεις καταντησει ρε δε το καταλαβαινεις???Παπαδημο κανε κομμα γρηγορα!!!
BG	54	19	παρε θεση για τα σοβαρα θεματα και ασε τις εκλογες
BG	55	19	Τον χαίρομαι ,αυτός ζει σε άλλο κόσμο σε άλλη εποχή και πρέπει να έχει και εφιάλτες να γίνει πρωθυπουργός ,δεν λέει και τίποτα άλλο όπου βρεθεί από εκλογές. Με το καλό, με το καλό ..
BG	56	19	ΚΑΛΑ Ο ΑΝΘΡΩΠΟΣ ΔΕΝ ΠΑΙΖΕΤΑΙ!ΟΠΟΥ ΣΤΑΘΕΙ ΟΠΟΥ ΒΡΕΘΕΙ ΖΗΤΑΕΙ ΕΚΛΟΓΕΣ!Η ΚΑΡΕΚΛΑ ΤΟΥ ΕΧΕΙ ΓΙΝΕΙ ΕΜΜΟΝΗ!
BG	57	19	Και άμα δεν γίνουν εκλογές μέχρι τέλος Μαρτίου τι θα κάνει? Θα τα βάψει μαύρα? Θα φύγει? Θα αλλαξοπιστήσει? Μας δουλεύουν όλοι κανονικά.
BG	58	20	Ο ΣΑΜΑΡΑΣ ΑΝ ΔΕΧΘΕΙ ΝΑ ΠΑΝΕ ΟΙ ΕΚΛΟΓΕΣ ΤΕΛΟΣ ΑΠΡΙΛΙΟΥ ΕΠΕΙΔΗ ΑΥΤΟ ΘΕΛΕΙ Ο ΠΑΠΑΔΗΜΟΣ ΚΑΙ ΑΥΤΟΙ ΠΟΥ ΤΟΝ ΣΤΗΡΙΖΟΥΝ , ΤΟΤΕ ΘΑ ΥΠΟΓΡΑΨΕΙ ΜΟΝΟΣ ΤΟΥ ΤΟ ΠΟΛΙΤΙΚΟ ΤΟΥ ΤΕΛΟΣ ΚΑΙ ΤΟ ΤΕΛΟΣ ΤΗΣ ΝΕΑΣ ΔΗΜΟΚΡΑΤΙΑΣ. ΕΚΛΟΓΕΣ ΣΤΙΣ 19/2/2012. Ο ΒΕΝΙΖΕΛΟΣ ΕΙΝΑΙ ΑΥΤΟΣ ΠΟΥ ΕΔΕΙΞΕ ΑΥΤΗΝ ΤΗΝ ΗΜΕΡΟΜΗΝΙΑ ΟΤΑΝ ΣΥΜΦΩΝΗΣΑΝΕ ΤΑ ΚΟΜΜΑΤΑ ΚΑΙ ΕΧΕΙ ΤΗΝ ΣΗΜΑΣΙΑ ΤΟΥ ΑΥΤΟ ΓΙΑΤΙ ΧΕΙΡΙΖΕΤΑΙ ΑΥΤΑ ΤΑ ΘΕΜΑΤΑ.
BG	59	21	Αν δεν σχηματισθεί φορέας που θα έχει στο πρόγραμμά του να αφανίσει τους συνδικαλιστές και τα άλλα λαμόγια, π.χ. Τεχνοκράτες υπό την ηγεσία του Παπαδήμου και άλλων ικανών ανθρώπων της Οικονομίας

			τότε θα ψηφίσω Καρατζαφέρη!
BG	60	21	ΠΑΤΡΙΔΟΚΑΠΗΛΕ ΠΡΟΔΟΤΗ ΟΥΤΕ ΜΙΑ ΨΗΦΟ ΞΑΝΑ!!!!
BG	61	21	αυτοκτονία, καταστροφή, όλεθρος, πτώχευση, ανεξέλεγκτη χρεοκοπία, κτλ. το λεξιλόγιο που χρησιμοποιεί ο Καρατζαφέρης και πολλοί δημοσιογράφοι - πολιτικοί χτυπάει κατευθείαν το θυμικό του ανθρώπου χωρίς να φιλτραριστεί από τη λογική του. Η συνέπεια είναι ο φόβος που προξενεί ψυχοσωματικές αντιδράσεις και μετατρέπει τους ανθρώπους σε πειθήνια όντα. Δυστυχώς δεχόμαστε καθημερινά ένα βομβαρδισμό τέτοιων λεκτικών (και εικονιστικών) μηνυμάτων που μας δημιουργούν αρνητικά συναισθήματα και προέρχονται κυρίως από αυτούς που στηρίζουν το μνημόνιο και κυβερνούν τη χώρα. Τα συμπεράσματα δικά σας.....
BG	62	21	Ξυπνάτε μωρέ η Ελλάδα χρειάζεται μεταπολίτευση και νέες ιδέες.Μας κατέστρεψε ο δικομματισμός και τα λοιπά συμφεροντολογικά κόμματα.Νέες ιδέες νέα κόμματα νέα οράματα από μια γενιά συνειδητοποιημένη πλέον (και όχι κομματόσκυλα βλέπε πανεπιστήμια-φοιτητικές κομματικές νεολαίες).
BG	63	21	ΘΕΛΩ ΝΑ ΚΑΤΑΛΑΒΩ ΡΕ ΠΑΙΔΙΑ ΚΑΤΙ,ΑΥΤΟΙ ΠΟΥ ΨΗΦΙΖΟΥΝ ΛΑ.Ο.Σ ΨΗΦΙΖΟΥΝ ΑΤΟΜΑ ΜΕ ΠΑΤΡΙΩΤΙΚΑ ΣΥΝΑΙΣΘΗΜΑΤΑ??? ΘΕΩΡΕΙΤΑΙ ΟΤΙ Ο ΚΑΡΑΤΖΑΦΕΡΗΣ ΚΑΙ Η ΟΜΑΔΑ ΤΟΥ ΕΧΟΥΝ ΩΣ ΣΚΟΠΟ ΝΑ ΔΙΑΦΥΛΑΞΟΥΝ ΤΑ ΚΥΡΙΑΡΧΙΚΑ ΔΙΚΑΙΩΜΑΤΑ ΤΗΣ ΠΑΤΡΙΔΑΣ Η ΜΠΗΚΑΝΕ ΣΤΟ ΚΟΛΠΟ ΜΑΖΙ ΜΕ ΤΟΥΣ ΑΛΛΟΥΣ ΓΙΑ ΝΑ ΜΗΝ ΠΑΡΕΙ ΚΕΦΑΛΙ ΑΡΙΣΤΕΡΑ??? ΕΦΟΣΟΝ ΘΕΛΕΙΣ ΝΑ ΛΕΓΕΣΑΙ ΔΗΜΟΚΡΑΤΙΚΟΣ ΚΙ ΕΠΕΙΔΗ Η ΔΗΜΟΚΡΑΤΙΑ ΠΗΓΑΖΕΙ ΑΠΟ ΤΟ ΛΑΟ,ΔΗΛΑΔΗ ΕΙΣΑΙ ΑΝΤΙΠΡΟΣΩΠΟΣ ΑΥΤΩΝ ΠΟΥ ΣΕ ΨΗΦΙΖΟΥΝ ΔΕ ΒΡΙΣΚΩ ΤΟ ΛΟΓΟ ΝΑ ΜΗ ΘΕΛΕΙ ΕΚΛΟΓΕΣ ΣΕ ΜΙΑ ΚΑΤΑΣΤΑΣΗ ΠΟΥ ΕΙΝΑΙ ΔΥΣΒΑΣΤΑΧΤΗ ΓΙΑ ΤΟ ΛΑΟ,ΝΑ ΑΠΟΦΑΣΙΣΕΙ Ο ΛΑΟΣ ΕΑΝ ΘΕΛΕΙ ΑΥΤΟΥΣ ΠΟΥ ΣΤΗΡΙΞΑΝ ΤΟ ΜΝΗΜΟΝΙΟ Η ΑΥΤΟΥΣ ΠΟΥ ΕΝΤΑΣΣΟΝΤΑΙ ΣΕ ΕΝΑ ΕΠΑΝΑΣΤΑΤΙΚΟ ΑΓΩΝΙΣΤΙΚΟ

			ΜΠΛΟΚ,ΤΑ ΓΚΑΛΟΠ ΔΕΙΧΝΟΥΝ ΤΗ ΔΥΝΑΜΗ ΑΥΤΟΥ ΤΟΥ ΨΕΥΤΟΠΑΤΡΙΩΤΙΚΟΥ ΚΟΜΜΑΤΟΣ ΝΑ ΧΕΙ ΧΑΣΕΙ ΜΕΡΟΣ ΤΗΣ ΔΥΝΑΜΗΣ ΤΟΥ,ΚΑΝΟΝΙΚΑ ΟΥΤΕ 2% ΔΕ ΠΡΕΠΕΙ ΝΑ ΠΙΑΣΟΥΝ,ΚΑΠΟΤΕ ΠΡΕΠΕΙ ΝΑ ΚΑΤΑΛΑΒΟΥΝ ΟΤΙ ΔΕΝ ΑΠΟΦΑΣΙΖΟΥΝ ΜΟΝΟΙ ΤΟΥΣ,ΤΟ ΕΚΛΟΓΙΚΟ ΣΩΜΑ ΑΠΟΦΑΣΙΖΕΙ ΓΙΑ ΤΟ ΜΕΛΛΟΝ ΤΗΣ ΧΩΡΑΣ.....
BG	64	21	Η εξουσία και οι καρεκλές είναι σαν το τζακι προεδρε.Απο κοντα καιγεσαι απο μακρυν κρυνεις....
BG	65	22	Ας το παραδεχτούμε. Δεν υπάρχει σωτήρας ούτε πολιτική μορφή που θα μας σώσει μέσα στα επόμενα 2-3 χρόνια. Πρέπει κάποιος από το λαό, ένας πολίτης που έχει δουλέψει και έχει διαχειριστεί και ομάδες ανθρώπων να αναλάβει να ιδρύσει ένα κόμμα. Αλλιώς θα τρώνε και στην κρίση. Όσοι ξέρετε τι σημαίνει shortarisma στο χρηματιστήριο, καταλαβαίνετε τι γίνεται τώρα αντίστοιχα στην πολιτική ζωή της χώρας!!!
BG	66	22	Οι εκλογές θα οδηγήσουν και πάλι σε κυβερνήσεις συνεργασίας "με το ζόρι". Θα προηγηθεί μια απίστευτη προεκλογική περίοδος, που θα μας κάνει να χάσουμε και τα απομεινάρια της υπομονής μας. Αλλαγή των αριθμών στην εκπροσώπηση των κομμάτων στη βουλή, και "συνεργασία" με διαφορετική ποσόστωση, να τι θα αλλάξει μόνο, κι εσείς αυτό το λέτε "λύση"; Αν κάποιος ενδιαφέρεται πραγματικά για τη σωτηρία της χώρας, αφήνει στην άκρη το ύφος του σωτήρα, ξεχνάει τι τον χωρίζει από τους άλλους και εστιάζει όλη του την προσπάθεια στο στόχο. Ειδικά, αν συμμετείχε κι αυτός στην καταστροφή...
BG	67	23	Αντωνάκη...Αντωνάκη...οι δημοσκοπήσεις ...είναι τόσο αληθινέςπου βγάζουν μάτι,....
BG	68	23	Όπως το παει ουτε τον δικο του ψηφο δεν θα παρει ασχετα με το τι λενε οι στημενες δημοσκοπησεις

BG	69	23	<p>Όχι κυριοι δεν είναι ολοι ίδιοι γιατί δεν ψήφισαν ολοι το μνημονιο ουτε ολοι πήρανε μίζες. Έκανε ο Τσιπρας στατιστικη χημεια για τα δημοσιονομικα; Επαιρνε η Παπαρηγα δανεια 15 χρονια τωρα; Ειπε ναι (εστω) ο Καρατζαφερης στο μεταναστευτικο για το Δουβλινο 2; Μηπως ηταν οι Πρασινοι που εσκασαν τη φουσκα στο χρηματιστηριο; Μηπως ηταν ο ΣΥΝ που ξεπουλησε την Ολυμπιακη; Μηπως ειδατε πουθενα κιτρινα, κοκκινα και αλλα παιδια εκτος απο γαλαζια και πρασινα;; Καλα να παθετε Ελληνες αφου ψηφιζετε δικομματισμο μια 20αετια. Γιατι δεν ψηφιζετε κανενα μικρο κομμα να δουμε αν μπορουν να κανουν κατι; Τους βαλατε ποτε κατω αυτους να αποδειξουν αν θα εκαναν αυτα που λενε;</p>
BG	70	23	<p>ΓΙΩΡΓΑΚΗ ΦΥΓΕ ΑΞΙΟΠΡΕΠΩΣ ΠΡΟΣ ΑΜΕΡΙΚΑ ΜΕΡΙΑ ΠΡΙΝ ΣΕ ΨΑΧΝΕΙ ΑΡΓΟΤΕΡΑ Η ΙΝΤΕΡΠΟΛ ΜΕ ΤΑ ΕΙΔΙΚΑ ΔΙΚΑΣΤΗΡΙΑ ΓΙΑ ΤΑ ΟΙΚΟΝΟΜΙΚΑ ΕΓΚΛΗΜΑΤΑ ΚΑΙ ΤΑ ΞΕΠΟΥΛΗΜΑΤΑ ΠΟΥ ΕΚΑΝΕΣ ΧΩΡΙΣ ΕΜΑΣ ΓΙΑ ΕΣΑΣ</p>
BG	71	23	<p>Ας αφήσουν τα τερτίπια. Ας καταλάβουν ότι το πρόβλημα είναι η πολιτική τους. Εγώ ΠΑΣΟΚ ψήφισα αλλά μου βγήκε κάτι άλλο. Δεν είναι ΠΑΣΟΚ αυτό. Λυπάμαι γι' αυτή τη κατάντια. Έχουν στραφεί κατά του κόσμου που τους ψήφισε και νομίζουν ότι ακόμη και τώρα με τα καραγκιοζιλίκια και μετά από όλα αυτά τα μέτρα που πήραν και θέλουν να πάρουν, θα γυρίσουν την μπάλα. Κούνια που τους κούναγε.</p>

BG	72	23	<p>Οι Ευρωπαίοι ποια θέση παίρνουν με τις τακτικές του Ελληνικού κράτους;; Συμφωνούν για τον ευρωπαϊκό τους πολιτισμό;; Αυτοί κάνουν επέμβαση στην Λιβύη, για την Ελλάδα δεν θα πάρουν θέση; Τι ζητάμε να ζήσουμε σε ένα κράτος με ισότητα - αλληλεγγύη - δικαιοσύνη. ΜΑ ΤΟΣΟ ΔΥΣΚΟΛΟ ΕΙΝΑΙ;; μέχρι και σε CRM θα υπάρχει. ΕΛΕΟΣ οι πολιτικοί μας κουράστηκαν για να πετύχουν: 1. Πλούτο χωρίς μόχθο 2. Απόλαυση χωρίς συναίσθημα 3. Εμπόριο χωρίς ήθος 4. Γνώση χωρίς χαρακτήρα 5. Επιστήμη χωρίς ανθρωπιά 6. Λατρεία χωρίς θυσία 7. Πολιτική χωρίς αρχές λυπηθείτε τους πρέπει να γίνει ανασχηματισμός για να ολοκληρώσουν. Αγανακτώ... μα λίγο παύω και κοιτώ στοχαστικά. Φταίω εγώ που τους αφήνω να με ελέγχουν εκλογικά. Μόνο μια ελπίδα μένει να σωθώ από όλα αυτά. Να με αφήνουν να ψηφίζω έτσι απλά αναλογικά. Όλα τα άλλα ακολουθούν τα ζητάω μετά για εμάς. Έχουμε αξίες και άλλα... όλα θα τα ξεπερνάς. Τώρα πρέπει να ζητάω Λευτεριά από αυτό, που τους έφερε εδώ πέρα να πονάνε τον λαό. Κάποτε υπήρχε αγώνας για απλή αναλογική, τώρα όλοι την ξεχνάνε για μια θέση στην βουλή. Η Ελλάδα μας αξίζει και οι Έλληνες μπορούν, την πατρίδα τους να σώσουν δίκαια σε αυτήν να ζουν. Σας ζητώ απ την ψυχή μου μη ξεχάσετε και εσείς να ζητάτε από όλους πάλι την απλή αναλογική.</p>
BG	73	23	<p>τρεις ανθρωποι κατεστρεψαν την Ελλαδα Παπανδρεου, Παπακωνσταντινου,Ραγκουσης</p>
BG	74	23	<p>Να δω τον αρχισυνδικαλιστή Ρέππα αντιπρόεδρο θέλω και τον Φωτόπουλο της ΔΕΗ υπουργό επικρατείας για τις μεγάλες επενδύσεις!! Αυτά είναι πρόσωπα όχι παίζουμε!! ΟΥΣΤ αλήτες!!</p>
BG	75	23	<p>αφου διαλυσε την οικονομια ο εγγονος του βασιλικου επιτροπου τωρα θα διαλυσει και τις ενοπλες δυναμεις απολυωντας σαν αντιπαραγωγικους και τους πιλοτους γιατι κοστιζουν.μαλλον θα ξανανοιξουν και τα ξερονησια για τους αριστερους και ειναι απαραιτητος υπουργος με γνωσεις αντικομμουνισμου.μια βαρετη πλεον επαναληψη της ιστοριας μας.</p>

BG	76	23	Δεν σε θελει κανενας δοσιλογε.παραιτησου!!!! και σου υποσχομαστε θα εχεις μια δικαιη δικη.
BG	77	23	ΔΙΚΑΙΟΣΥΝΗ, ΑΞΙΟΚΡΑΤΙΑ, ΠΑΙΔΕΙΑ. Αυτά χρειαζομαστε και όχι εναλλαγή προσωπών.Η πλειοψηφία των πολιτικών (για να μην πω ΟΛΟΙ) και πολλών άλλων για να φτάσουν στα αξιώματα που "κατέχουν" δεν έχουν στηριχτεί σε αυτές τις αρχές. Και έμεις, ο απλός ελληνικός λαός μια ΖΩΗ ΥΠΗΡΕΤΟΥΜΕ πολιτικούς,επιχειρηματίες, τραπεζίτες. Αν δεν υπήρχε με ένα μαγικό τρόπο το χρέος, ουτε μειώσεις αλλά αυξήσεις σε μίσθους, τότε θα ήταν όλα καλά; Θα συνεχίζαμε να αντιδρούμε; Ολα τα στράβα και ανάποδα θα εξαλείφονταν μαζί με το χρέος;
BG	78	23	Γιώργο, ηρέμησε. Όχι τόσο σαρωτικό ανασχηματισμό. Και πρόσεχε και τον αποτυχημένο Παπακωνσταντίνου. Να του δώσεις άλλο υπουργείο μην τον πιάσει κατάθλιψη. Τη δε Λούκα που έχει δηλώσει πως είναι και κατά των μεταρρυθμίσεων κράτα τη γερά. Είναι αναντικατάστατη. Άτολμος και ανίκανος στις πιο δύσκολες στιγμές της χώρας.
BG	79	23	Γιναμε ρεζιλι παγκοσμιως με τις γελειοτητες ενος ανικανου πρωθυπουργου. Το κακο ειναι οτι και η υπολοιπη πολιτικη ταξη ειναι χαμηλης ποιοτητας και υπαρχει ελλειψη σοβαρων προτασεων για να βγουμε απο τη κριση. Φοβαμαι οτι οδηγουμαστε σε μια χρεωκοπια και με οτι συνεπαγεται απο αυτην. Ο Ελληνικος λαος πρεπει να αρχισει να προετοιμαζεται για αυτη τη πραγματικοτητα.
BG	80	23	πλάκα κάνει τώρα ε;