PROMAP: developing a research tool for protest mapping

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The National Centre for Social Research -EKKE in Clarin:el

- Prospective member
- Memorandum of collaboration between EKKE and RC Athena already signed
- Some technical issues still need to be solved (EKKE IdP)
- EKKE is planned to join the Greek network during the next phase (Operational Phase, 2017-2019)

Use of Clarin:el services

1. PROMAP: a use case

2. Radicalism: verbal aggressiveness in twitter data

- During the PROMAP project ILSP services were not yet integrated in the infrastructure
- Goal: to replace the manual workflow used until then with automated services, regarding:
  - Collection of newspaper material to be used as corpus
  - Processing of textual material to identify useful excerpts
  - Analysis of excerpts to feed the codebook frames
  - Statistical processing of codified material
  - Visualization of results

Radicalism

Radicalized Orthodoxy?

Civic discontent and religious identification in times of crisis

Theoni Stathopoulou (EKKE) & Haris Papageorgiou (Athena RC)

RC 33 Conference, Leicester 11-16 Sep. 2016

RESEARCH QUESTIONS

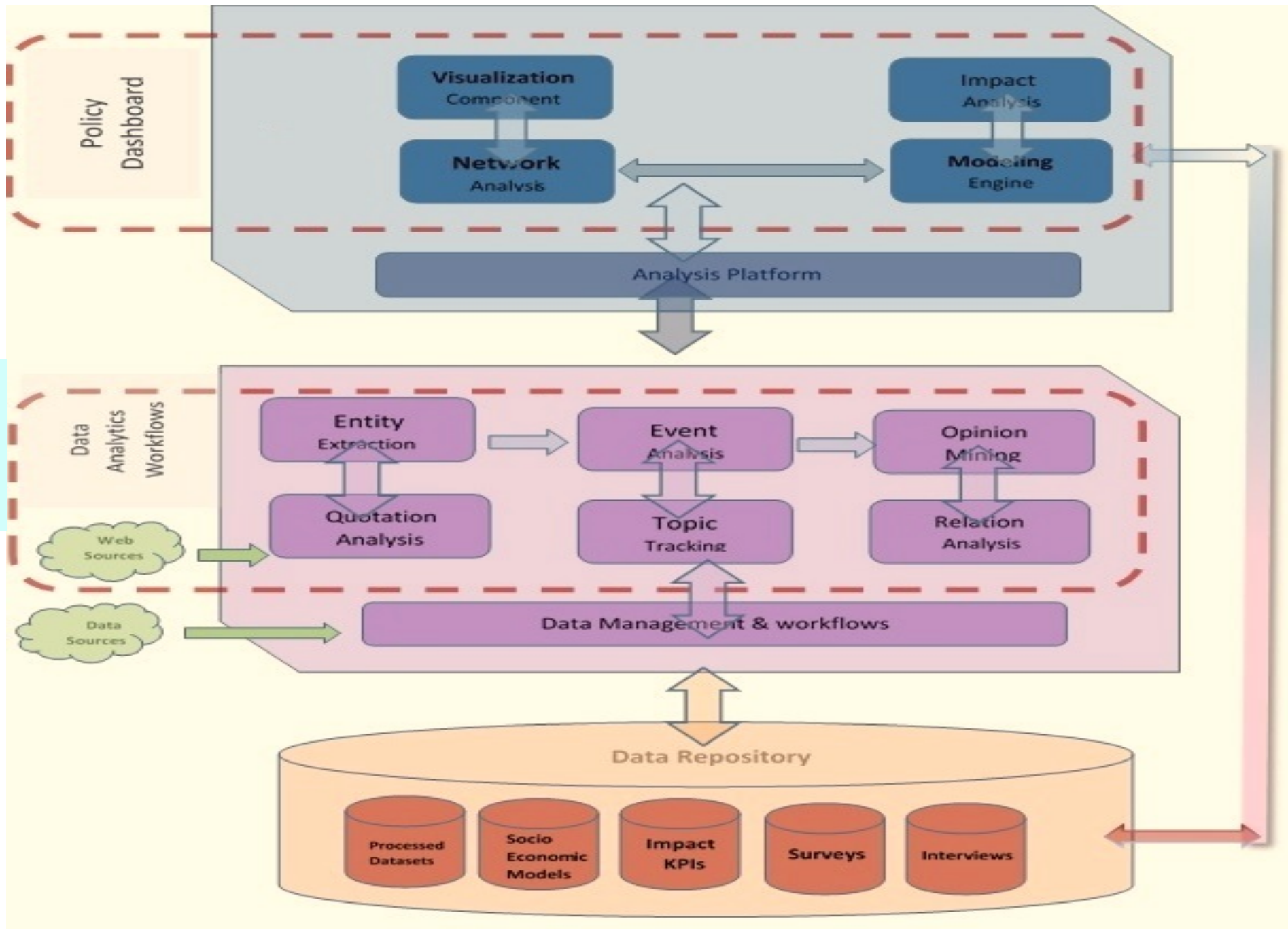**Verbal Aggressiveness (Twitter)**
- Muslims
- Pakistani

Physical Attacks (News Data)
- Muslims
- Pakistani

- What are the correlations?

- Does Verbal Aggressiveness lead to Physical Violence?

- Are calls for action turned into events of violence?
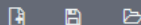
PALOMAR ARCHITECTURE

Quick

Relative

Absolute

Today   Yesterday   Last 15 minutes   Last 30 days
This week   Day before yesterday   Last 30 minutes   Last 60 days
This month   This day last week   Last 1 hour   Last 90 days
This year   Previous week   Last 4 hours   Last 6 months
The day so far   Previous month   Last 12 hours   Last 1 year
Week to date   Previous year   Last 24 hours   Last 2 years
Month to date   Last 7 days   Last 5 years
Year to date

⌃

text: ισλάμ   🔍   📄 💾 📂

xeno-data-twitter-1   65,660 hits

Selected Fields

September 5th 2011, 13:09:38.053 - September 5th 2016, 13:09:38.054 — by month

t text

Available Fields ⚙

Popular

◷ @timestamp
◷ created_at
t in_reply_to_screen_name
in_reply_to_user_id
t lang
t source
user.id
t user.lang
t user.location
t user.name
t @version
t _id
t _index
_score
t _type
? contributors
? coordinates

created_at per month

⌃
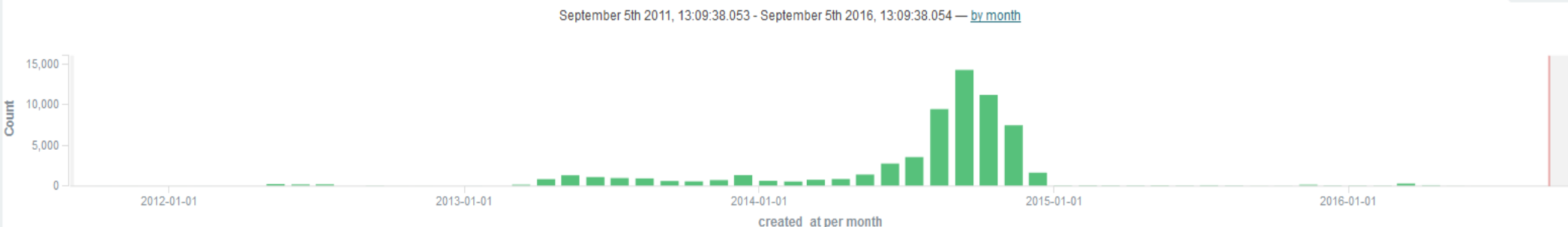
Time ▾   text

▸ July 15th 2016, 21:19:56.000   Η προφητεία του Καντάφι που τον δικαίωσε: 'Εάν πέσω, η Ευρώπη θα πέσει στα νύχια του **Ισλάμ** - https://t.co/P6aSmXgUO8

▸ June 14th 2016, 14:32:37.000   RT @amna_news: ΕΚΤΑΚΤΟ: Συριακοί τηλεοπτικοί σταθμοί μεταδίδουν ότι σκοτώθηκε ο ηγέτης του **Ισλαμικού** Κράτους Αμπού Μπακρ αλ-Μπαγκντάντι #Συ...

▸ June 13th 2016, 17:06:58.000   RT @Papavannesa: Δεν υπάρχει μετριοπαθές **Ισλάμ** δεν υπάρχει μετριοπαθής θρησκεία
                                  Η πιστεύεις τα πάντα η όχι

▸ June 13th 2016, 02:14:41.000   Το **Ισλαμικό** Κράτος ανέλαβε την ευθύνη για το μακελειό στο Ορλάντο - Αναγνωρίστηκε ο δράστης (photos) https://t.co/MOjOEE4oIq

▸ June 12th 2016, 19:08:09.000   RT @adiasistos: Ταξιδιωτική οδηγία του **Ισλαμικού** Κράτους προς τα μέλη του να αποφεύγουν τις πόλεις που γίνεται το γιούρο λόγω επικινδυνότητ...

▸ June 10th 2016, 22:58:56.000   RT @tribunegr: 3 χλμ από το κέντρο της Φαλούτζα οι Ιρακινοί - Παγιδευμένο το **Ισλαμικό** Κράτος https://t.co/ac59wUuIqo https://t.co/8sSqQzg37Q

▸ June 9th 2016, 18:07:32.000   RT @kanekos69: Το **ισλαμικο** κρατος ανελαβε την ευθυνη για την τρομοκρατικη επιθεση στον Μαυρικο, μπερδευτηκαν και χτυπησαν λαθος ακροπολη

▸ June 8th 2016, 16:30:24.000   "Ανθέλληνας" και "μισέλληνας" γιατί γράφω στον πούτσο πρώην καθολικά/ορθόδοξα/ **ισλαμικά** ντουβάρια.
                                  Σάλτα γαμήσου. https://t.co/x26TsdpGTM

Rationale of PROMAP

- Eurozone and global economic crisis
- New waves of mobilization and protest, new forms of collective action
- New paradigms, repertoires and actors
- Emerging "new" forms of protest and grassroots mobilization on economic hardship have incorporated attributes of "older" forms of protest (mid 1990s)

Aim and Key objectives

Record and map

- varying forms of contention and mobilization in post-authoritarian Greece (1996-2014)

- protest events /actors-participants/repertoires/agendas

- the evolution and transformation of contentious claims over time

Document

- protest cycles in Greece

- "the dynamics of contention" (*Kriesi et. al. 1995; Grande &Kriesi 2013*) in Greece

RESEARCH FRAMEWORK

- Collective action
- The role of social movements for social transformation
- Research agenda after 2000:
- migration and citizenship (Koopmans et al. 2005);
- the emergence of a European public sphere (Koopmans and Statham 2010; Della Porta and Caiani 2009);
- the politics of unemployment (Giugni 2009);
- the spread of new forms of participatory politics and democracy (Della Porta 2007; 2009);
- the policing of protest (Della Porta, Peterson, and Reiter 2006).

RESEARCH FRAMEWORK

- Protest event analysis (*Diani &Kousis 2014*)

- Claims analysis: Political Discourse Approaches in order to extend the context of political claims making, and become more sensitive to discursive messages (*Koopmans& Statham 1999*) (*Koopmans; Statham; Giugni; Passy 2005*) (*de Wilde; Koopmans; Zürn 2014*)

- Research agenda set by large comparative European projects

- Relevant research projects

Title	Research Centre	Time reference	Topic	Method	Resources	Sampling Method
PRODAT	WZB: Berlin Social Science Center (Rucht)	46 years (1950-1996)	Protest event analysis for the whole time span	event data analysis	PRODAT1: Newspapers (1) PRODAT2: Newspapers (2) and Police Records	Monday Newspaper Edition & all editions of the 4th Week per Month
Europub	WZB: Berlin Social Science Center (Koopmans)	8 years (1980, 1985, 1990, 1995, 1999-2002)	Degree of European Integration of 7 Countries (3) In 6 Institutional Sectors	political claim analysis/ Semi –structured Interviews	Newspaper Archive, Internet	
MERCI	WZB: Berlin Social Science Center (Koopmans)	7 years (1992-1998)	Immigration And ethnic relations in 5 European Cities	political claim analysis	1 Newspaper per Country (4)	Every Monday, Wednesday and Friday

Title	Research Centre	Time reference	Topic	Method	Resources	Sampling Method
Responsivegov	University of Leicester (Morales)	30 years (1980-2010)	18 Governments' (1) responsiveness to different forms of public opinion expression.	Content analysis & protest event analysis/ opinion polls	Newspapers & news agencies archive, existing databases of protest events (2)	
GGCRISI	Freie Universität Berlin & University of Crete (Roose & Kousis)	4 years (2009-2013) [research in progress]	Assigning responsibility for Eurozone Crisis, according to the related public debate in Greece & Germany	Political Claim Analysis, Protest Event & Interpretative Framing Analysis (Conversation Analysis of accountability) (3)	5 Newspapers per Country& Reuters, Internet (Parties and Civil Society Positions)	1 Day per week (rotation)
POLPART	Stichting Vu-Vumc (Klandermans)	5years (2014-2018) [research in progress]	Different types of Political Participation (national & international level) (4)	Movements & Parties Publications Meta-analysis, International Research Archives comparison, focus group & Questionnaires (1000 respondents)		

Title	Research Centre	Time reference	Topic	Method	Resources	Sampling Method
LOCALMULTIDEM	Universidad de Murcia (Morales)	1 year (2006)	Degree of Integration of Immigrants in 6 European Cities	Political Claim Analysis	1 Newspaper per City (1)	Every Monday, Wednesday and Friday
ESSi	The Netherlands Institute for Social Research & City University London	1 Month (November of 2010)	Feasibility study (Use of Media Claims as a Research tool supplementary to the ESS / for 8 Countries) (2)	Media claims analysis	2 Newspapers per Country/ Greece: 'Ta Nea' & 'Kathimerini'	Every day Editions except for Weekends
LIVEWHAT	University of Geneva (Giugni)	3 years(2013-2016) [Research in Progress]	Alternative Crisis Adaptability forms of European Citizens, individually, collectively and institutionally (20 countries)	Political Claim Analysis and Action Case Analysis	5 Nationwide Newspapers per Country & internet (facebook pages, blogs, etc)	Representative Sample of 1000 public interventions and alternative adaptability forms

ESSi: Developing event reporting

- Event Data/Event monitoring in European Social Survey
- Supplementary tool to ESS q/naire
- Measuring context in cross-national survey
- Media claims

PROMAP: a collaborative research project
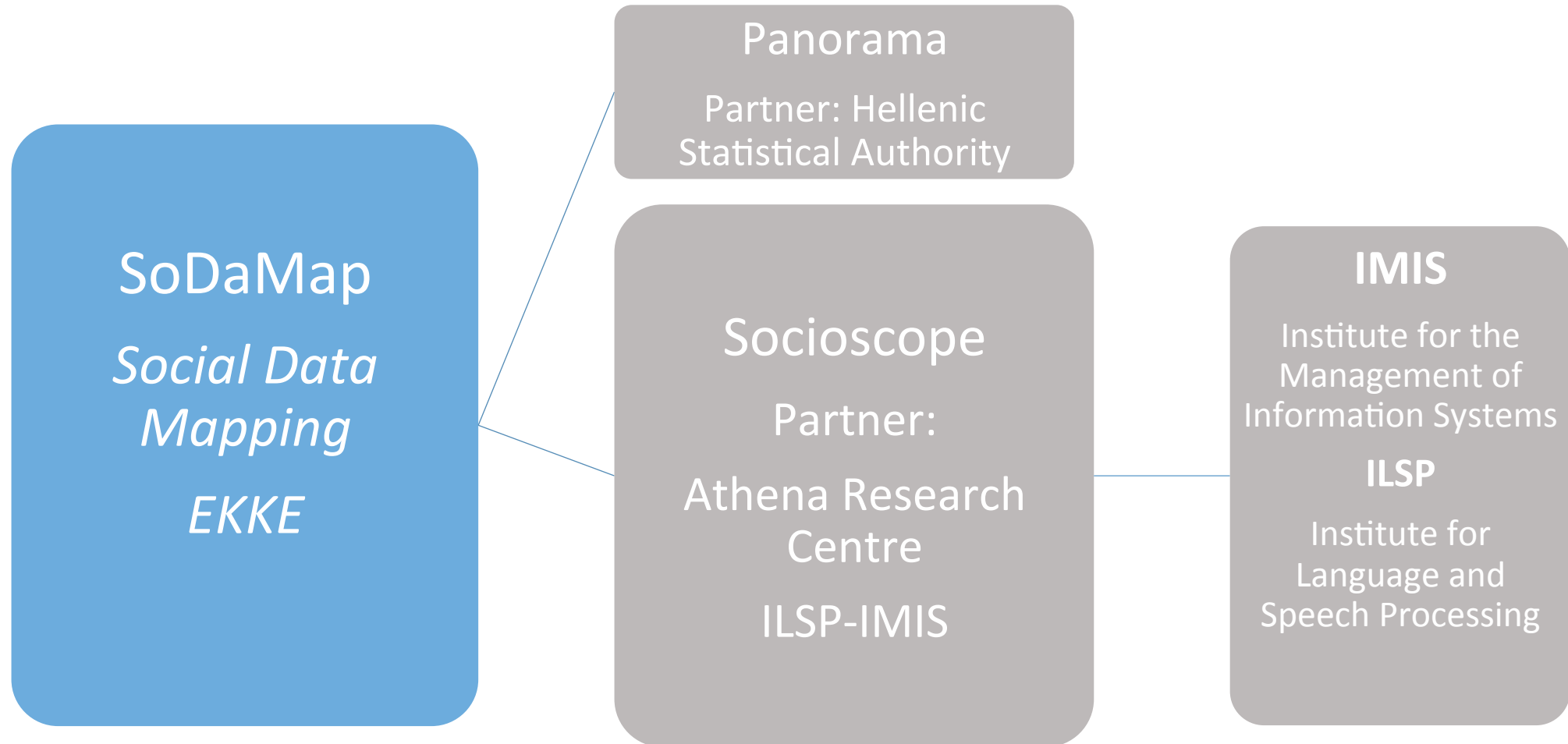
The need for automated content analysis with NLP tools

- 1. Social Media as a supplementary resource

- 2. "Big" Data

- 3. Identify trends over larger time spans

- University of Zurich -Wuest et.al 2013 (The politicization of Europe- A comparative study of six European countries 1970-2010)

PROMAP Methodology I

- PCA (Political claims analysis) *Koopmans & Statham (1999);* Koopmans (2002); de Wilde, Koopmans & Zürn (2014)
- Unit of analysis: claim
- Elaboration of new coding scheme
- Refinement of codebook (14ver.)
- Sampling strategy
  - Selection of daily newspapers : Kathimerini (rightist-center rightist) , Avgi (leftist)
  - Sample: 2 days per week for the entire period (Wednesday and Friday)

  - Pilot Coding

PROMAP Methodology II

Application of a computational method developed by ILSP (suite v.0.4)
Iterations (Machine learning) in collaboration with ILSP team.
Geospatial mapping and development of cube collection (RDF) by IMIS (socioscope)

- Constraints
- Availability of selected newspapers (Eleftherotypia)
- Availability of newspaper data in html or xml format
- Copyrighted material
- Selection Bias- Media content
- Restrictions of automated NLP tools

Definition of a claim in PROMAP

Rephrasing Koopman's (2002) and Statham's (2005) definitions:

- *"A claim is defined as a purposive unit of strategic or communicative action in the public sphere aiming at a collective stake and having the form of physical or verbal action"*.

- A valid claim is not explicitly political- a non political claim may have political implications.

The structure of a claim (variables)

1. Location of the claim in time and space (WHEN and WHERE is the claim made?)
2. Claimant: the actor making the claim (WHO makes the claim?)
3. Form of the claim (HOW is the claim inserted in the public sphere?)
4. The addressee of the claim (AT WHOM is the claim directed?)
5. The substantive issue of the claim (WHAT is the claim about?)
6. Object actor: who would be affected by the claim if it is realized (FOR/ AGAINST WHOM?)
7. The justification for the claim (WHY should this action be undertaken?)

- Source: Ruud Koopmans, 2002, *Codebook for the analysis of political mobilisation and communication in European public spheres*, Deliverable D2.1 of the project "The Transformation of Political Mobilisation and Communication in European Public Spheres"

Examples of claims

WHO (SUBJECT ACTOR)	HOW (FORM)	AT WHOM (ADDRESSEE)	WHAT (ISSUE)	FOR/AGAINST WHOM (OBJECT ACTOR)	WHY (FRAME)
The employees of the Greek Public Power Corporation	went on a strike	stating that the government	should not further privatize the Power Corporation because	the Greek people	benefit from the public ownership of the Corporation
The policemen and the fire-fighters	launched a work-to-rule action	asking the Deputy Minister of Finance	to satisfy their institutional and salary related demands	for themselves (policemen and fire-fighters)	
The municipal authorities and citizens of Melissia	organized a rally		in order to save the surrounding forest		because the natural character of the forest should be maintained

Application of computational method (Computational Social Sciences suite v0.4)

Analysis: Requirements Specification document based on the Codebook

Data: Collection, Preprocessing, Filtering

Design: Domain Modelling, System architecture

Implementation & Testing: tools and resources, sophisticated linguistic rules, machine learning, Basis: ILSP-NLP suite

Integration [CSS suite v0.4]: Claim extraction, Actor/Addressee & Issue detection, Time/Location Recognition

Maintenance

Natural Language Processing pipeline
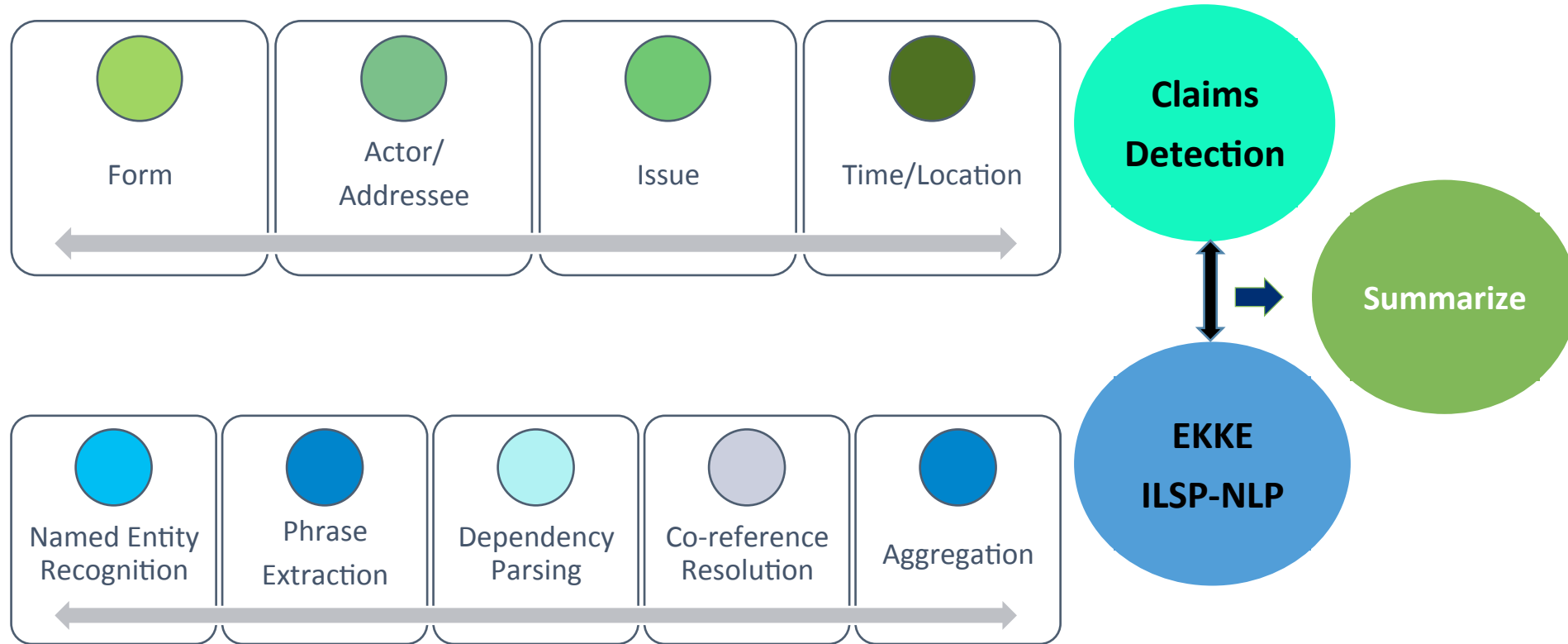
Preprocessing procedure

- Input : collection of articles from newspapers from 1996 to 2014 in **XML** format
- Each file in the dataset is a unique article.
- Output: **a collection of text files (TXT)**

Original data from Newspapers

- Transform XML files to TXT files
- N^1 = 330.000 articles

Apply a basic filter (Lexicon)

- Lemmas (nouns): strike, protest, demonstration etc.
- Locate articles that contain these words

Output : new collection of articles

- $N^2 >$ 50.000 articles that contain the nouns identified in the previous step.
- Creation of newspaper archive

Search for terms

Filter by year or by section

Saves the query and the collection of articles

Οπωσδήποτε όλα τα:

Τουλάχιστον ένα από τα παρακάτω:

Οπωσδήποτε ΟΧΙ τα παρακάτω:

Έτος

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Section

FORUM (318) ΑΓΟΡΕΣ & ΕΠΕΝΔΥΣΕΙΣ (711) ΑΤΖΕΝΤΑ (3214) ΕΛΛΑΔΑ (4204)
ΕΛΛΗΝΙΚΗ ΟΙΚΟΝΟΜΙΑ (1064) ΕΠΙΚΑΙΡΟΤΗΤΑ (15795) ΕΠΙΧΕΙΡΗΣΕΙΣ (12628) ΘΕΜΑ (5006)
ΚΑΘΗΜΕΡΙΝΗ (73249) ΚΟΙΝΩΝΙΑ (14) ΟΙΚΟΝΟΜΙΑ (11340)
ΟΙΚΟΝΟΜΙΑ & ΑΓΟΡΕΣ (13240) ΠΟΛΙΤΙΚΗ (18711) ΤΟ ΘΕΜΑ (319)

save

< 1 2 3 ... 15981 15982 > displaying 1 to 10 of 159813

Nov 11 1998
Πώς γεννιέται ένα αστέρι Η 24 χρονη Τζένιφερ Πέιτζ και η πορεία της στη βιομηχανία της σόου μπιζ

Nov 13 1998
ΠΑΡΕΜΒΑΣΕΙΣ Στην κόψη του ξυραφιού

Nov 06 1998
Διώξεις ισλαμιστών σε Αγκυρα και Βόννη Για την αποτυχημένη απόπειρα εναντίον του μαυσωλείου του Κεμάλ Ατατούρκ στην Τουρκία ΑΠΟΧΡΩΣΕΙΣ

Απρ 10 1998
ΔΙΕΘΝΗΣ ΟΙΚΟΝΟΜΙΑ Ρωσία: ζητούν δυναμικά τα δεδουλευμένα Ο ασκών χρέη πρωθυπουργού Κιριγιένκο «κατανοεί» το αίτημα

Απρ 10 1998
Απεργούν οι πιλότοι της All Nippon

Απρ 10 1998
Το γιεν δίνει μάχη στις αγορές χρήματος

Απρ 10 1998
Δοκιμασία για ΠΑΣΟΚ και η αναθεώρηση

Steps

	συνολικά (Τετάρτη & Παρασκευή)
Καθημερινή	314527
Αυγή	226462
Σύνολο	540989

	μετά την αφαίρεση κατηγοριών
Καθημερινή	171616
Αυγή	191268
Σύνολο	362884
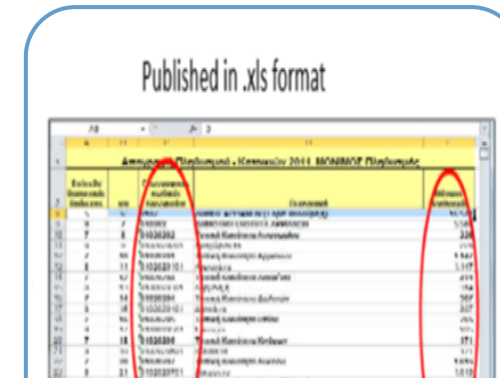
	επεξεργασμένα άρθρα
Καθημερινή	10202
Αυγή	14849
Σύνολο	25051

MANUAL CODING

Η Αυγή, 11 Σεπτεμβρίου 2013

Μαχητική συγκέντρωση και πορεία διαμαρτυρίας στη Θεσσαλονίκη

Θεσσαλονίκη: Την ώρα που οι εκπαιδευτικοί διαδήλωναν μαζικά στο Σύνταγμα, στη Θεσσαλονίκη εκατοντάδες καθηγητές της δευτεροβάθμιας εκπαίδευσης συγκεντρώθηκαν στην πλατεία Αγίας Σοφίας και στη συνέχεια πραγματοποίησαν πορεία διαμαρτυρίας σε κεντρικούς δρόμους της πόλης, φωνάζοντας συνθήματα κατά της κινητικότητας, αλλά και ενάντια στο ταξικό «Νέο Λύκειο» του Κ. Αρβανιτόπουλου.

…

PROMAP CODING

ΠΟΤΕ (time)	ΠΟΥ (location)	ΠΟΙΟΣ (actor)	ΠΩΣ (form)	ΣΕ ΠΟΙΟΝ (addressee)	ΤΙ (issue)	For/Against whom(object actor)
10-9-2013 CDAY=10 CMONTH=9 CYEAR=13	*Θεσσαλονίκη* CITY=1120701	*Καθηγητές* ACT1S=412 ACTTYP1=1 ACTPAR1=0	*Συγκέντρωση/ Πορεία* FORMS=7 FORM=72	*Υπ. Παιδείας Κ. Αρβανιτόπουλος* ACT1S=102 ACTCOUN1=11 ACTPAR1=1	*Κινητικότητα, ταξικό «Νέο Λύκειο»* ISFIELD1=90	*Καθηγητές* OBJ1S=412 OBJCOUN1=11 OBJPAR1=0
10-9-2013 CDAY=10 CMONTH=9 CYEAR=13	*Πλατεία Συντάγματος* CITY=3514501	*Εκπαιδευ-τικοί* ACT1S=412 ACTTYP1=1 ACTPAR1=0	*Διαδήλωση* FORMS=7 FORM=72	*Υπ. Παιδείας Κ. Αρβανιτόπουλος* ACT1S=102 ACTCOUN1=11 ACTPAR1=1	*Κινητικότητα, ταξικό «Νέο Λύκειο»* ISFIELD1=90	*Εκπαιδευτικοί* OBJ1S=412 OBJCOUN1=11 OBJPAR1=0

Findings: Selected forms of action

Form	Number of claims identified (1996-2013)	Percentage of total claims identified
Strike	2100	70.7%
Public assembly[1]	718	24.2%
Occupation/Sit-in	97	3.3%
Symbolic violence[2]	55	1.9%
Total	2970	100%
Total No. of articles=1997 (1.48/claims per article)		

[1] Public assemblies refer only to peaceful rallies (demonstrations on the move and violent demonstrations/assemblies are considered as different forms of action).

[2]. Symbolic violence includes the burning of flags, egg throwing, jeering, etc.

Figure 1: Claims per year

Legend:
- Strike
- Public assembly
- Occupation/Sit-in
- Symbolic violence
- Trend line (strike)
- Trend line (public assembly)

NE: National elections
CG: Change of government

Annotations on chart: Teachers' 8-week strike; New social insurance law; Memorandum; Seafarers' & teachers' strikes; Olympic Games; NE; NE/CG

Y-axis: Number of claims (0, 50, 100, 150, 200, 250)
X-axis: Year (1996–2013)
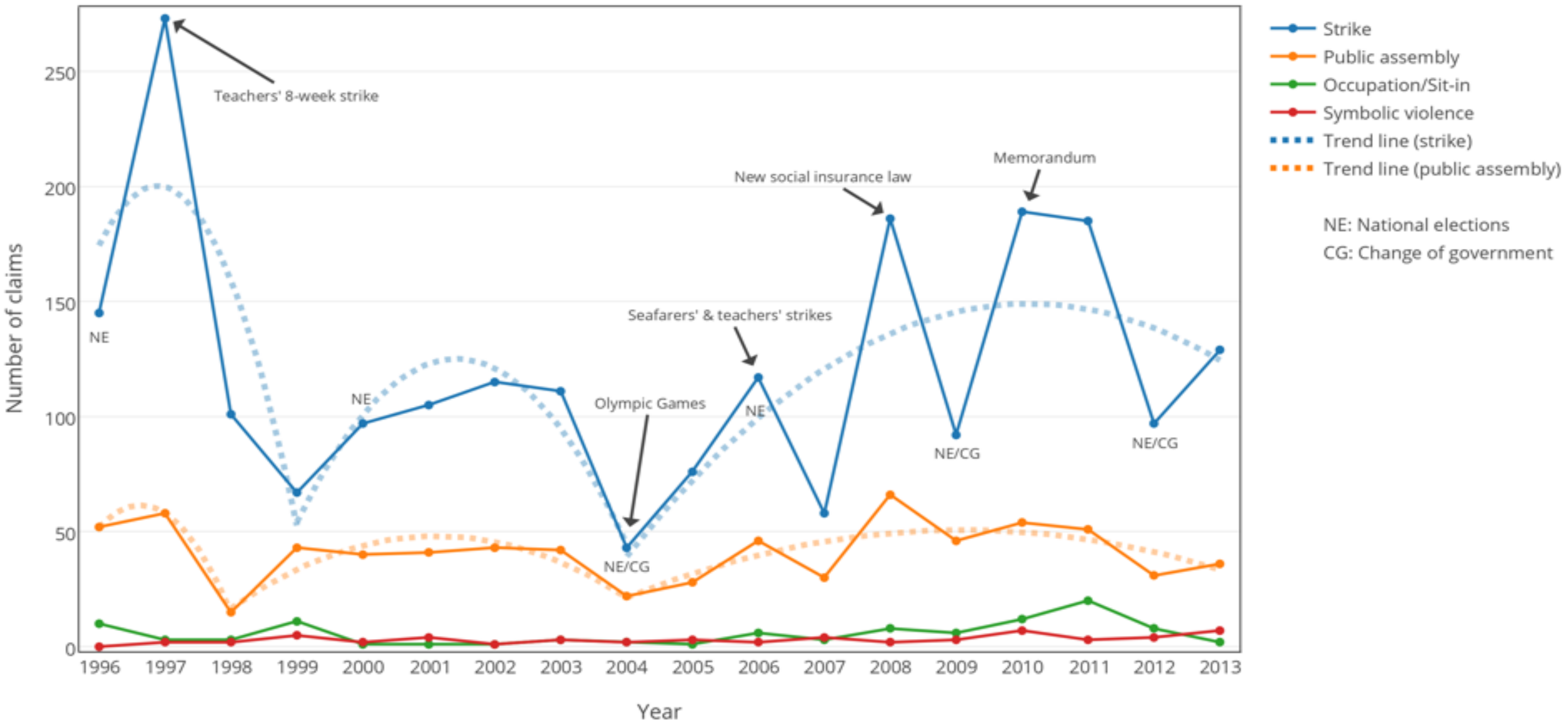
Figure 2: Claims per month
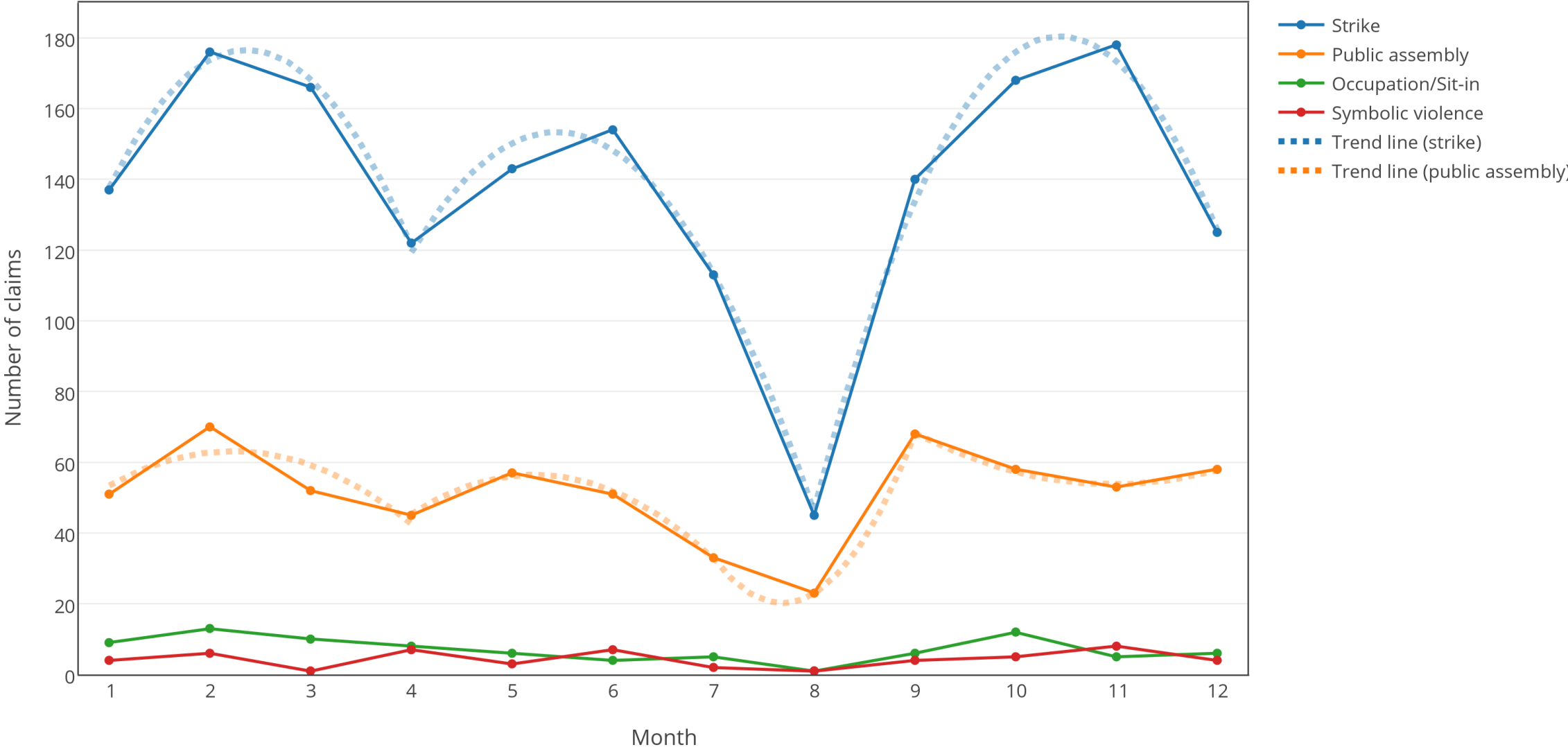
Main findings

- Predominant claims are over labour, employment and educational issues
- Strikes show the most significant variation over time (escalating during the first years of Economic crisis)
- Strikes are largely labour-related and time-dependent
- Trade Unions are the prominent actors of strikes, but shortly after the Olympic Games, and before Memorandum, it seems that they loose their ability to form and synthesize claims
- Symbolic violence occurs mainly in the Capital (Athens) and shows a stable evolution over time
- The *expectation of* a government change, has a negative effect on protest

A Social Data Analytics platform

www.socioscope.gr

Socioscope Highlights

o Social Data Analytics
  - o Data Exploration
  - o Visual Analytics on social and political data

o Social Data Visualization
  - o Dynamic Visualizations
  - o Combination of data from Different Thematic areas

o Linked Open Data availability
  - o Reuse of codebook
  - o API endpoint for online analysis
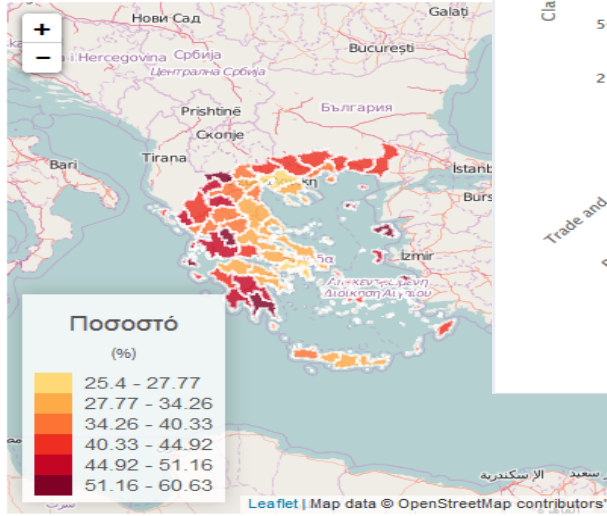
Data sources

CLARIN-PLUS workshop, Leuven 19-21 Sep. 2016
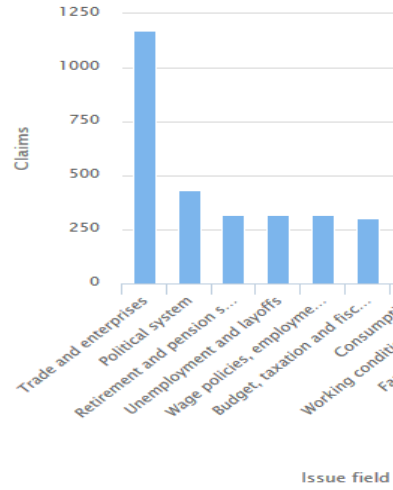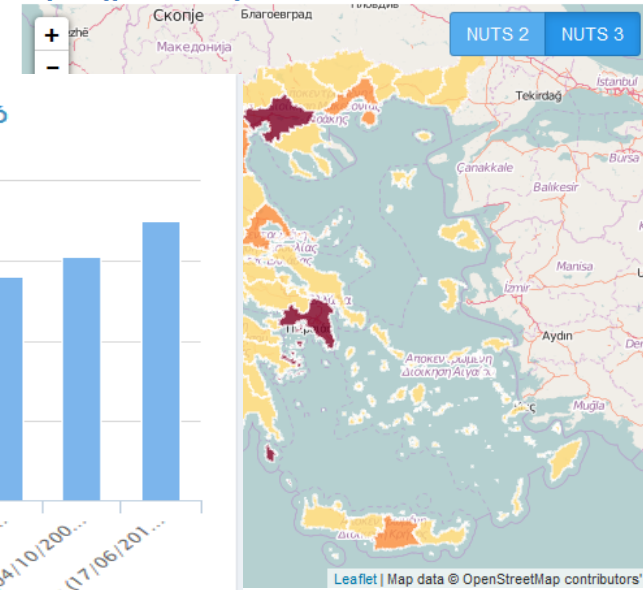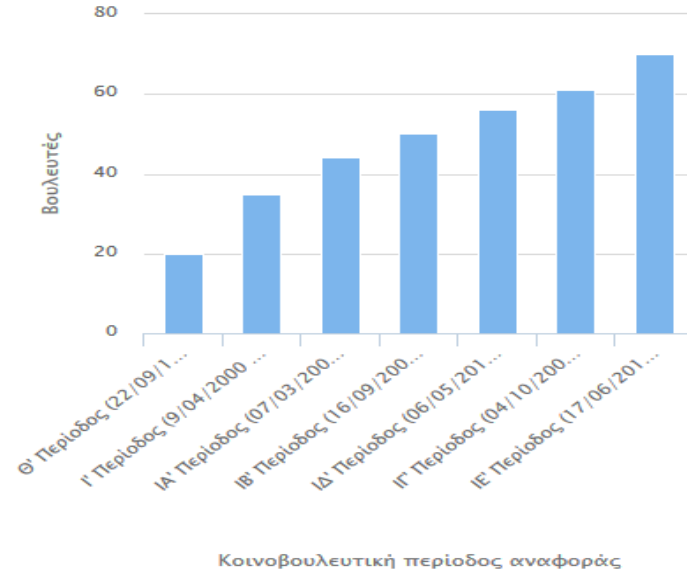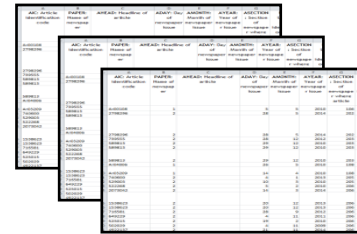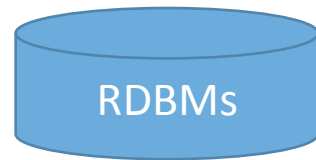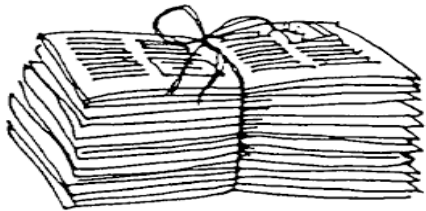
Dashboards

Data overview
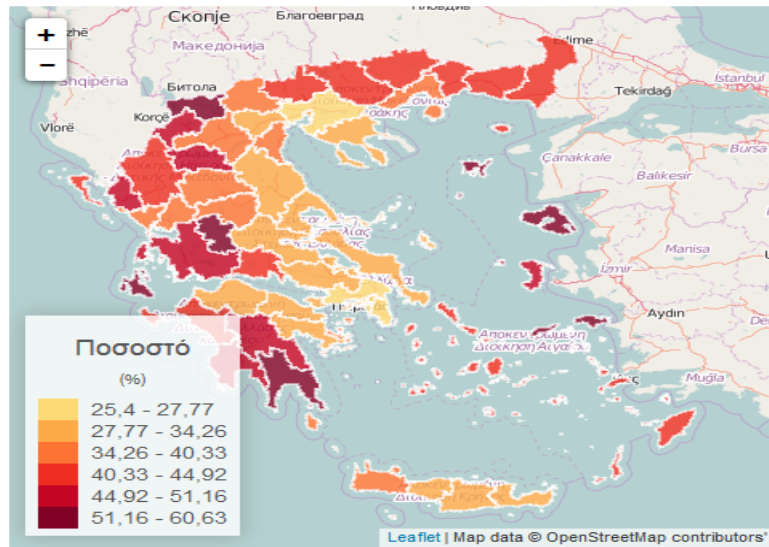
Highlighted Diagrams
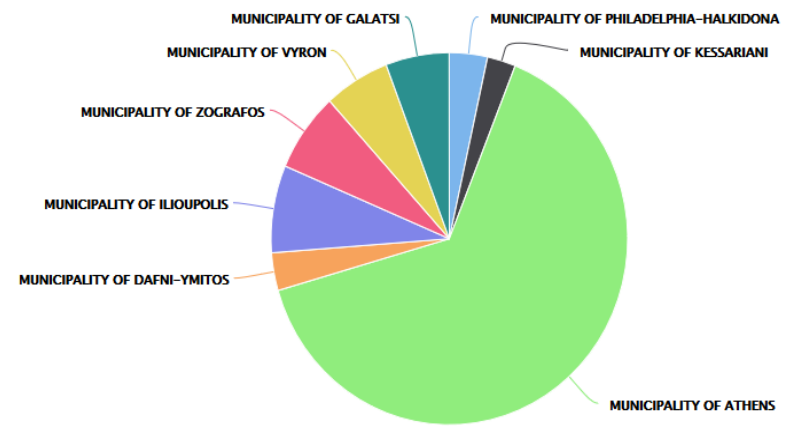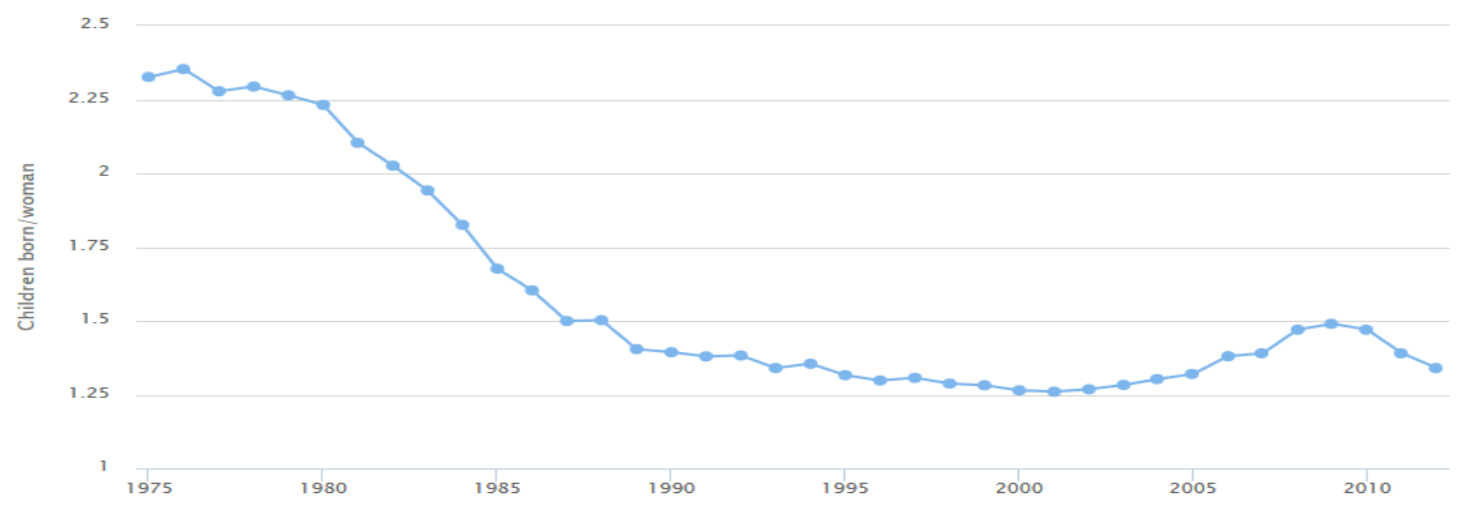
Various types of diagrams (bar, line, area, pie)

Choropleth Maps
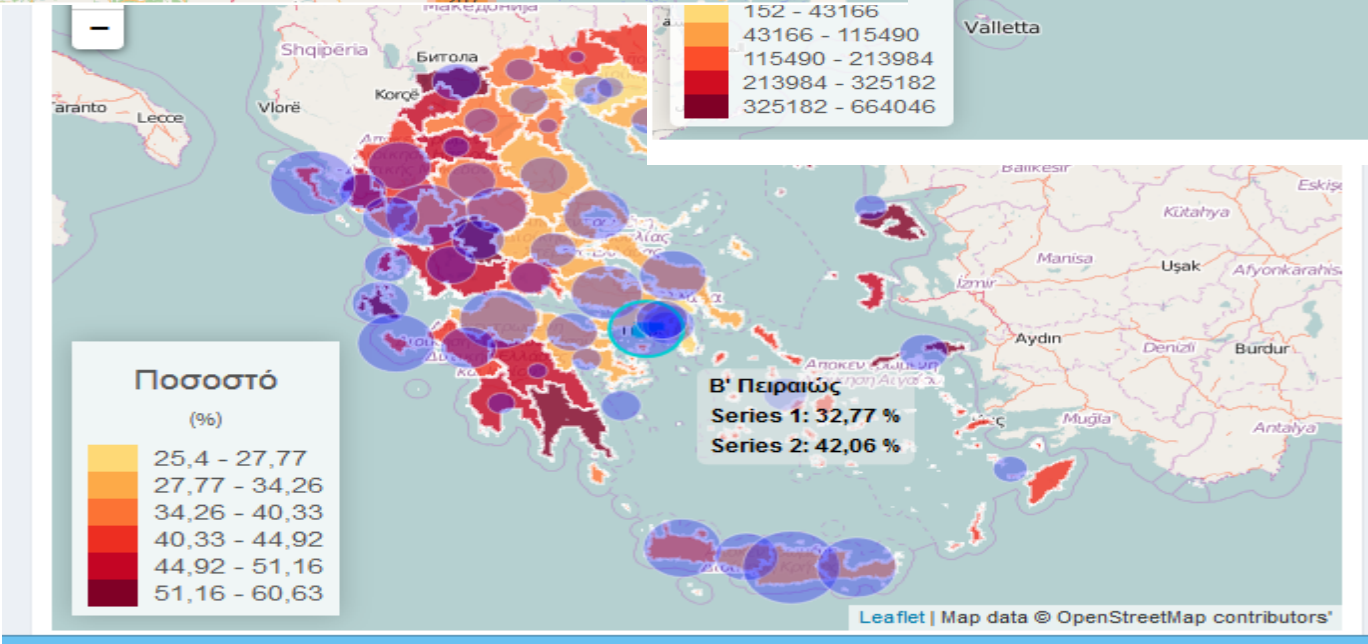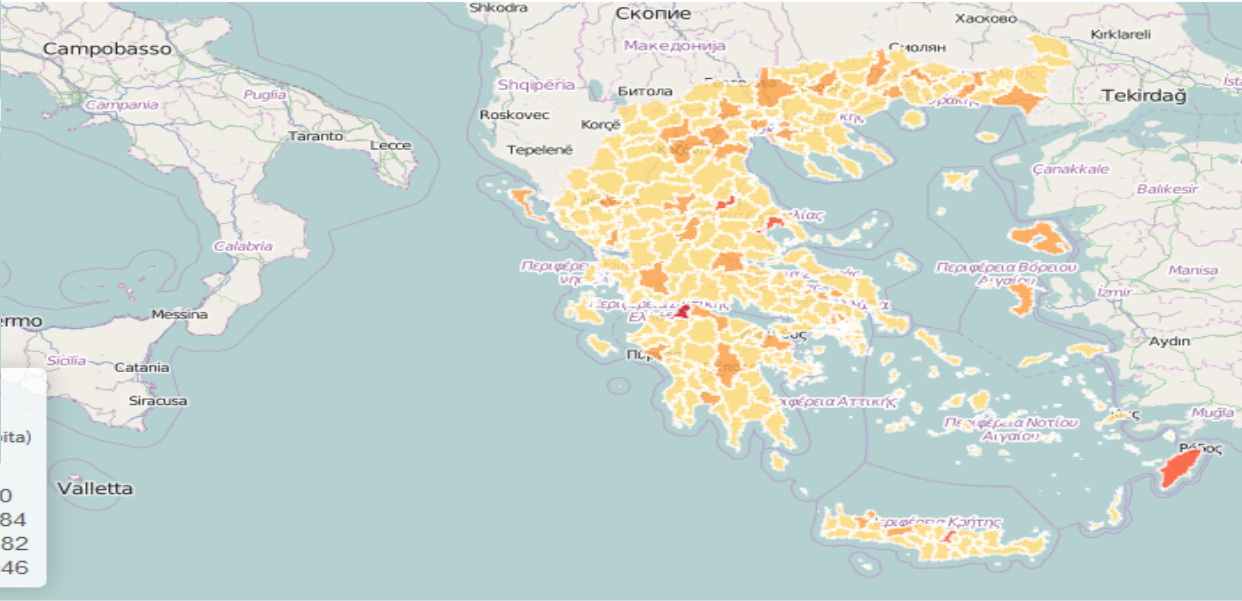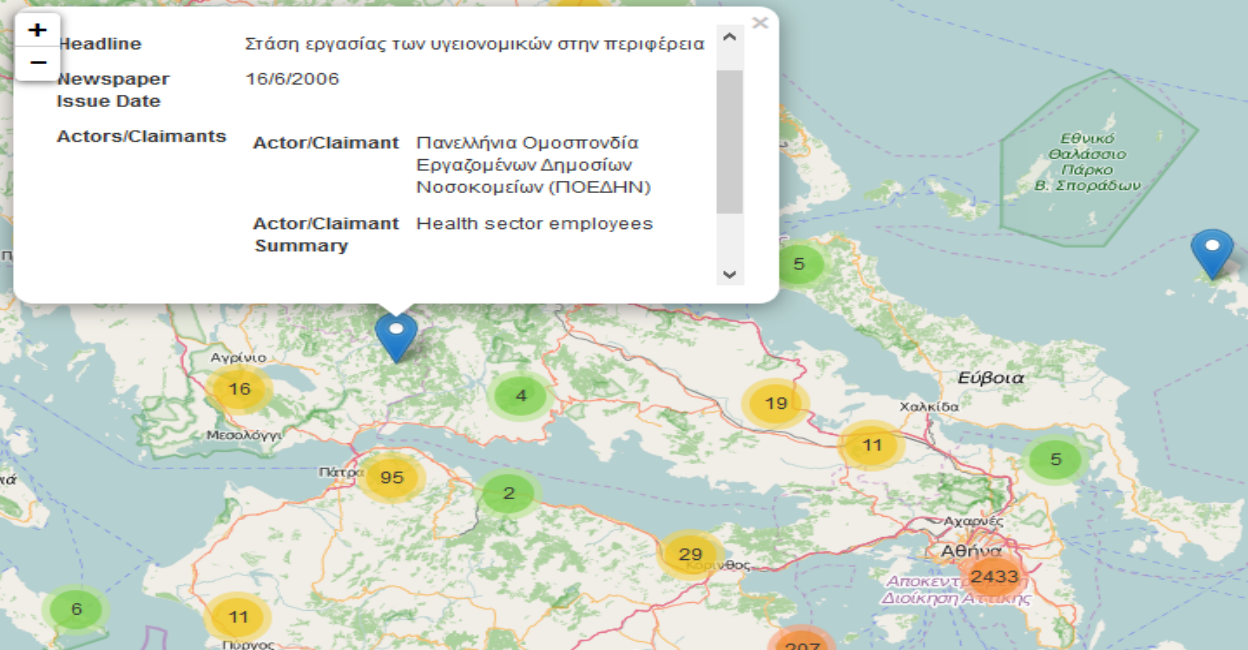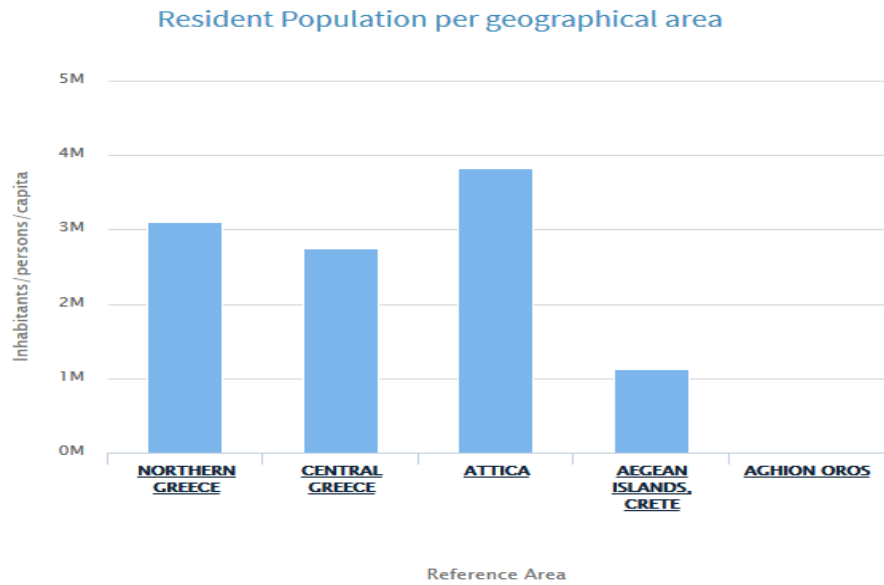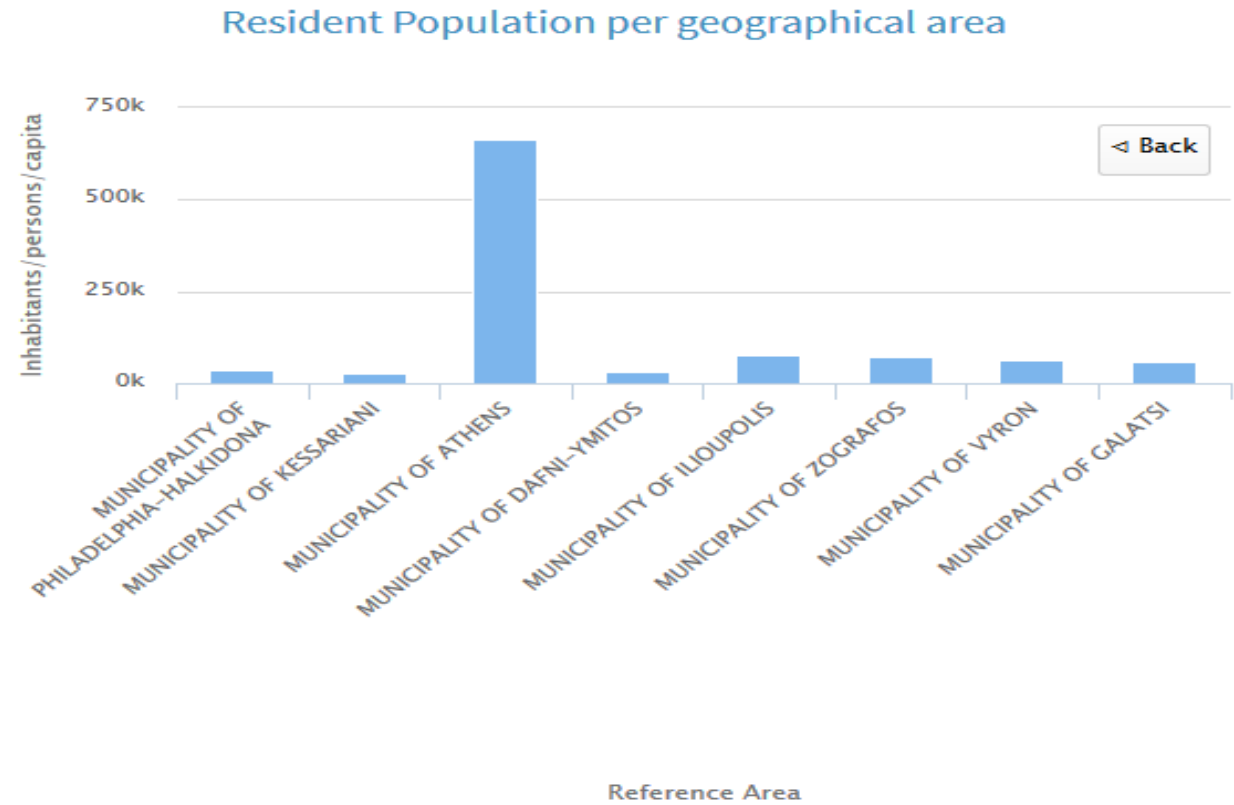
Hierarchical Exploration (roll-up, drill-down)

Full Text Search

Social conflicts and protests - PROMAP

Search...   🔍

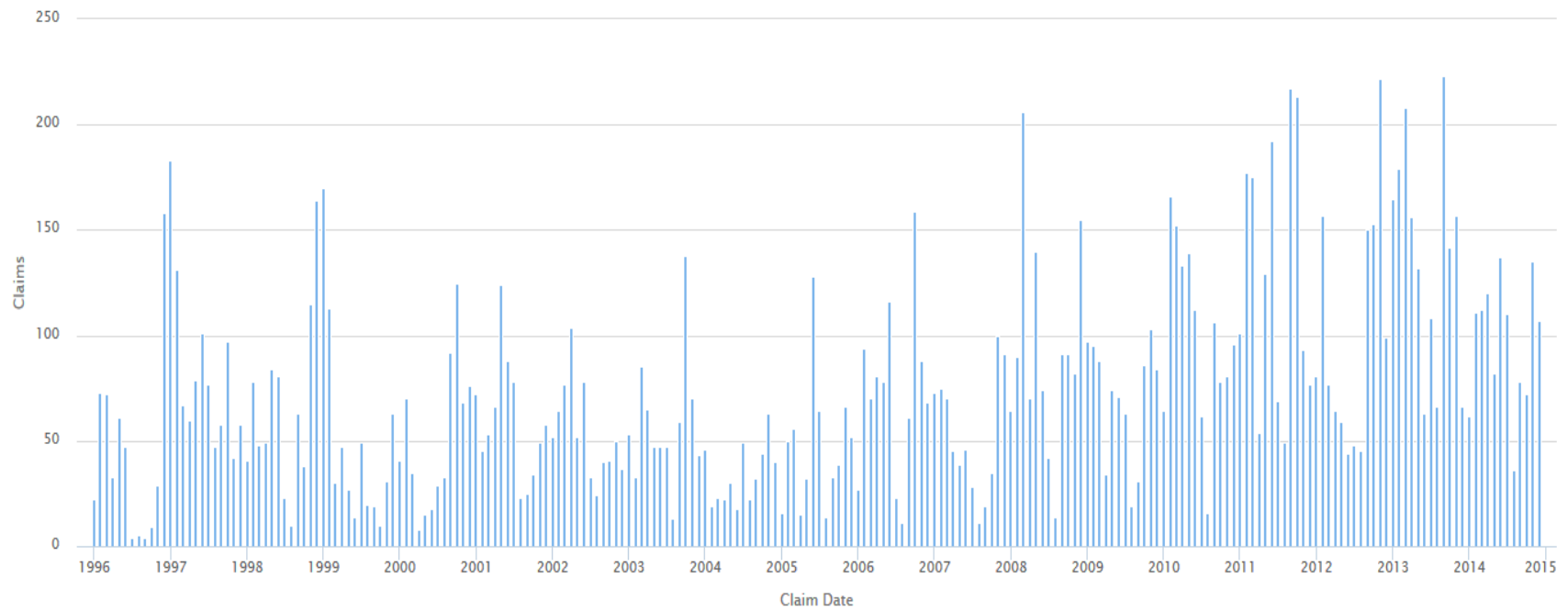| Chart | Map | Search Results |

Newspaper

Newspaper Issue Date

Claim Date   x-Axis

City

Actor/Claimant Summary

Addressee Summary

Addressee Country

Form of action (Summary)

Form of action

Issue field

Claims (y-axis) vs Claim Date (x-axis), years 1996–2015
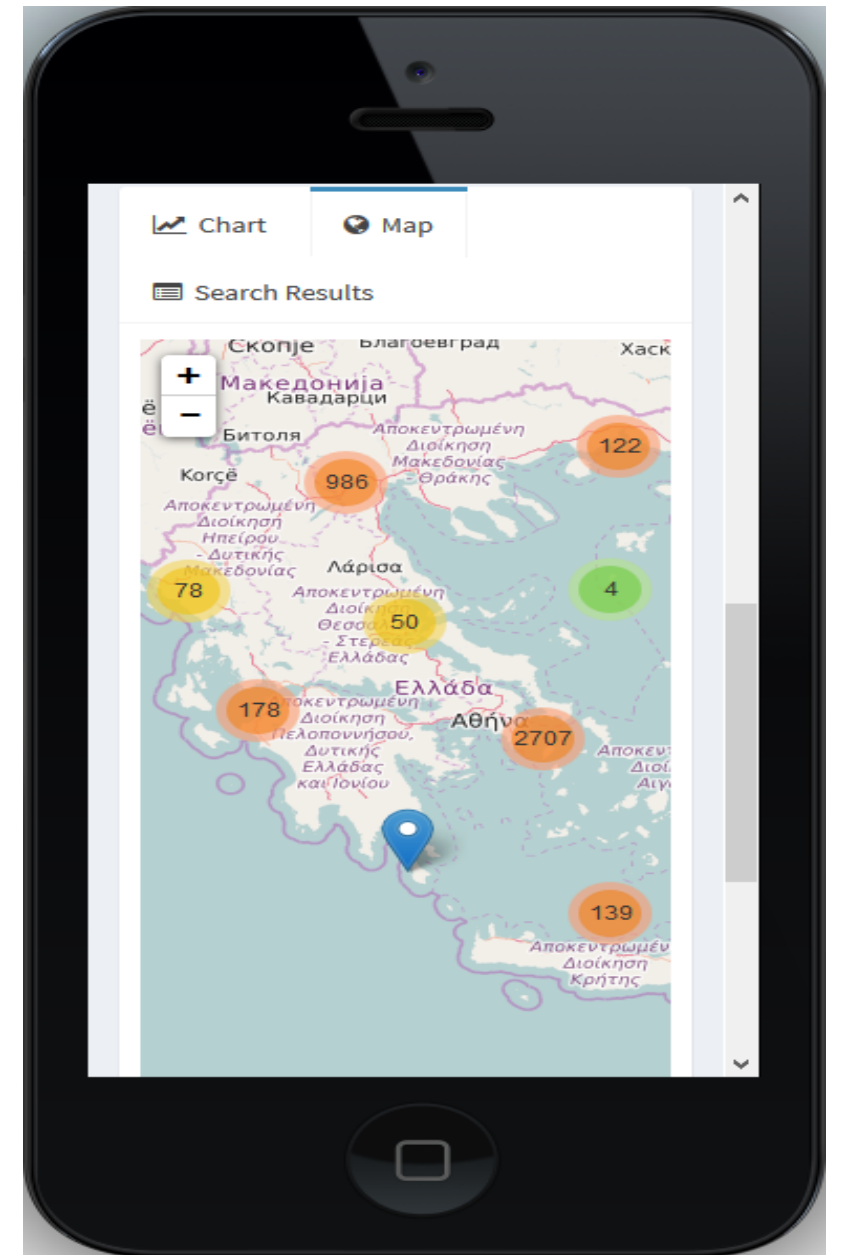
250

200

150

100

50

0

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Facets Browsing for filtering

Mobile Support

References

- *Stathopoulou T., (ed.) (2016) Transformations of Protest in Greece. Papazisis Publishers & EKKE, Athens [in English], in press.*

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- *Stathopoulou T., Stasinopoulos N., Diakoumakos G, 2015 (August 25-28) Mapping "old" and "new" forms of protest in Greece. European Sociological Association Conference. Prague, Czech Republic.*

Thank you for your attention

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