The European Parliament election of 2009 in Poland: The agenda-setting in the Polish Internet news portals

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ABSTRACT: The aim of this paper is to present the results of an automated research conducted on the most popular Polish Internet news portals in the week of the 2009 European Parliament election as well as during four weeks prior to this event. Detailed analysis of the exposure levels of main political parties is included and compared with the election results. This paper describes the quantitative analysis of the data gathered. The main similarities and differences in covering the election between portals are also discussed. Moreover, this article aims at introducing basic concepts of research tools, which allow to automate the procedure of gathering data from the Internet and processing it.

KEYWORDS: Internet research, news portals, media, agenda-setting

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INTRODUCTION

The European Parliament election of 2009 took place on the 7th of June, but long before that day we had observed an increased level of media coverage of parties and candidates involved. We had seen candidates' faces and party logos on the streets, in the newspapers and in the TV channels. We had heard news about the election in the radio and read about it in the Internet. Some ordinary people had even talked about it.

For about ten years now, researchers try to estimate the role of the Internet in conducting political campaigns (Drew & Weaver, 2006; Gibson *et al.*, 2003; Hindman, 2005; Kaid, 2003; Kaid & Postelnicu, 2005; Lawson-Borders & Kirk, 2003; Lusoli, 2005). The 2008 presidential campaign in the U.S. was a great example of how fast the importance of the Internet grows: "The internet is living up to its potential as a major source for news about the presidential campaign. Nearly a quarter of Americans (24%) say they regularly learn something about the campaign from the internet, almost double the percentage from a comparable point in the 2004 campaign (13%)" (Pew Research Center, 2008, p. 2). At the same time, the importance of television and the press shrinks.

In this paper I will analyse how the Internet media covered the European Parliament campaign of 2009. By "Internet media" I mean the most popular Polish Internet news portals. The research was conducted with the use of automated research tool which will be briefly described below.

The research data has been gathered between 4th of May and 7th of June 2009. The election took place on Sunday, 7th of June. These 35 days were divided into five periods: 4th – 10th May, 11th – 17th May, 18th – 24th May, 25th – 31st May, and 1st – 7th June. Every period starts on Monday and ends on Sunday.

This paper presents only the quantitative analysis of the data gathered. We assume that the media agenda concerns not so much particular *issues* (i.e. domestic/foreign policy), but rather the *political parties* or candidates. Thus, we presuppose that the extent to which each political party was represented in the media, and the level of importance attached to each party, reflects party's score in the election. The main characteristics of ascribing the importance to given party include: displaying more than one news about given party at the same time, displaying these news at better positions and displaying them for longer periods of time than other news. We do not try to answer the question of *what* the particular news portal was saying about a given political party. We only try to assess *how much* was the portal saying.

THE OBJECT OF THE RESEARCH

An introduction of a few basic definitions is required to specify the area which was considered relevant during the research. Let us name three of them: "web portal," "news box," "an article."

In the simplest definition of the term "web portal" we read that it is "a special Web site designed to act as a gateway to give convenient access to other sites" (Tatnall, 2005, p. 14). It is obviously way too broad, and too close to a general description of a hyperlinks concept. For the sake of this research we decided to define the term **web portal** as a web page which serves up-to-date news mainly of political background in a dedicated, well exhibited part of the screen. We call this area a **news box**. At the same time such a site provides economy/entertainment/sports/culture/etc. news in separate boxes. Nevertheless, at this time, only the general news/political events box was taken into account during the research.

Each news box contains a list of titles. Each title points to a separate web page, which, among all the additions, contains the article, the content of the news itself. The contents of such a website are extracted – leaving all the additions aside – and that is what constitutes an **article**.

According to Megapanel PBI/Gemius (2009) research of the most popular Polish websites, there are four Internet news portals in the top 10. These are consecutively: Onet.pl Group (2nd place, 12.2 mln users), Wirtualna Polska Group (4th place,

10.6 mln users), Gazeta.pl Group (6th place, 9.9 mln users), Interia.pl Group (7th place, 9.9 mln users).[1]

The popularity of these portals is the main reason why we include them in our research. Nevertheless, there is one more cause: these portals are connected with other Polish media and thus we can assume that their agenda-setting policies reflect the policies of their media partners. Gazeta.pl is related to *Gazeta Wyborcza* daily newspaper, Interia.pl is a partner of RMF FM radio, while Onet.pl and WP.pl are connected with TV stations, TVN/TVN24 and Polsat, respectively. These are ones of the key players on Polish media market. And they were able to draw the attention of millions of Internet users as well.

THE RESEARCH TOOL

Three additional terms – "a sample," "a tag" and "a topic" – ought to be introduced next. They all belong to the middle layer located between the research object and the actual computations conducted when the samples are already grouped into topics by extracted tags.

In short, the process of data gathering consists of a few steps: (1) download the main page of the news portal, (2) extract the news box from this page, (3) download all the websites pointed by the titles in the news box, (4) extract the article from each website, (5) save all the data (titles, positions of titles in the box, links, articles, etc.) in the database.

Each time the data is downloaded, it is saved in the database as a separate **sample** with its own time-stamp. Each sample contains data for all four portals. For each portal there is a number of records in each sample, one record for one title.

Given a set of samples a bit of preprocessing is required to group titles pointing to the same articles. Only after grouping the titles we are able to tell when a given title occurred for a first time, how its position was changing in time, when it was removed and what its display time was.

The title may change in time, so the title itself cannot be a background for grouping titles for each portal. The Internet address, the news position in news box and the contents of the article may change too. Since every feature of the same story may change in time, the concept of **tags** was introduced to overcome the liquidity of the research environment.

A tag is a word found in the contents of the article, which starts with a big letter. It indicates two things: the beginning of a sentence or a proper name (of a person, country, political party, etc.). To filter out the words with which the sentences usually start, the dictionary of such words was created in the testing period (November and December of 2008) of this functionality. It is possible to search not only for

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[1] The data presented above refers to May of 2009. The numbers of users are rounded.

single words, but also for consecutive collections of words (examples: "Wielka Brytania" / "Great Britain," "Michael Jackson," etc.).

The contents of the article may change, but if the article concerns a particular case, then the same, or similar, tags will be found therein. When the titles are finally grouped by tags they are known as a **topic**. A topic is a collective name for an article published under different titles (represented under the first title under which the article was published).

To group a few articles into a topic, the similarity of tags between each article must account for at least 65%. Because of the inflection of proper names in Polish language (both Polish and foreign names, i.e. names, surnames, geographical names, etc.), tags are checked for similarity in two steps: (1) by first four letters of the name, and then – if the letters fit – (2) an improved Ratcliff-Obershelp algorithm (Peters, 2009) for matching the sequence is deployed (with the sequence ratio set to 0.8 by default).

The research tool consists of two separate programs (Walczak 2009a, b). The first is responsible for gathering the data and saving it in the database. The second processes the data and creates research reports.

Some general features of the data gathering software: works 24 hours a day, 7 days a week; downloads content samples every 20 minutes (this value is configurable, but in the case of this research it was 20 minutes); saves content samples in the database. The starting point for the data download is fixed. In this particular configuration, four main pages of four internet news portals are downloaded. The sites are located at the following addresses: http://wp.pl, http://gazeta.pl, http://interia.pl and http://onet.pl.

Even though the data gathering software worked 24 hours a day, only the samples gathered between 6:00AM and 11:00PM each day (17 hours in sum) were processed and analysed. The cause is simple: the display time plays a significant role in estimating the importance of the news. Adding all the night hours to our statistics, when most of the population is asleep, would spoil the results. The statistics of hourly server/internet connection overload of the news portals could be useful in setting these boundaries, but this kind of data is not publicly available.

THE RESULTS OF THE ELECTION

Before presenting the results of our study it is important to remind the results of the election itself. In one of the classic texts about agenda-setting during the 1968 U.S. presidential campaign, Maxwell E. McCombs and Donald L. Shaw attempted to match what the "voters said were key issues of the campaign with the actual content of the mass media used by them during the campaign" (McCombs & Shaw, 1972, p. 177). In our research the content of the mass media (i.e. the Internet news portals) is matched against the actual results of the election (instead of the interviews with the readers).

At some point we will compare the results of the election with the results of our research. Let alone the causality of events, we will try to answer a much simpler question: does the web portals coverage of political parties reflect the election results? The results of the 2009 election by political party are displayed in Table 1.[2]

Table 1. The 2009 European Parliament election results by political party

Political party	Percent of votes obtained
PO	44.43
PiS	27.40
SLD-UP	12.34
PSL	7.01
PdP-CL	2.44
PRP	1.95
SO	1.46
Libertas Poland	1.14
UPR	1.1
PPP	0.70
Others	0.03
Total	100%

Source: National Electoral Commission, 2009b.

Since we are now acquainted with the research object, the details of the research tool and the election results, we can dive into the results of the research.

THE RESULTS OF THE RESEARCH

Given the tool and its features, the most obvious question we can ask is: in how many topics has particular party been mentioned? We will answer this question for each portal separately. The results will be presented on four figures.

Only the name of the party is displayed on the figures, although the research tool was searching the articles against sets of names. Each party could actually be matched by its acronym or by its full name or by the most popular inflections of its full name.

The following four figures present the numbers of topics published for particular political party portal by portal.

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[2] For the convenience of non-Polish readers, the acronyms are deciphered in Table 1 in Appendix A and the English translations of party names are provided.
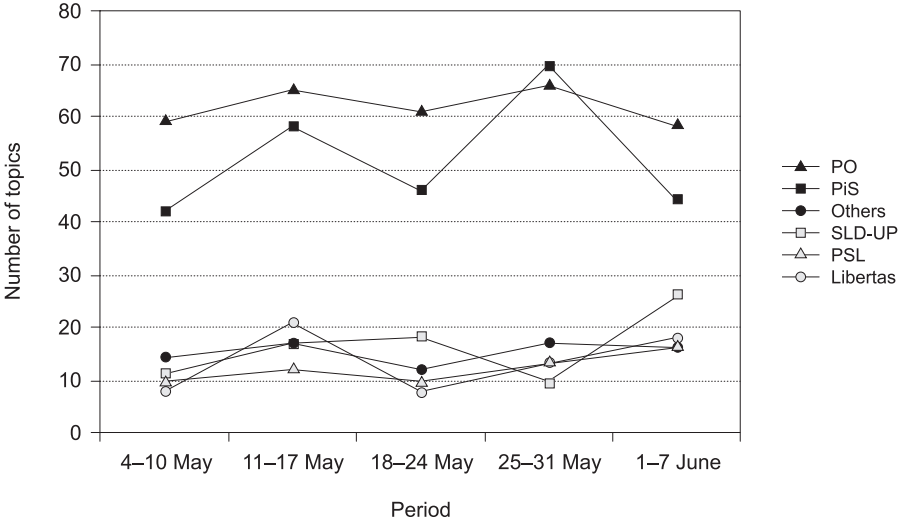
Figure 1. Topics presented on Gazeta.pl
Source: author's elaboration.

Two political parties, PiS and PO, were similarly popular on Gazeta.pl, at least according to the number of topics in which the party name was mentioned. There is a visible space separating the two top parties from the other parties. There should actually be three spheres: PiS and PO at the top, Libertas, PSL and SLD-UP in the middle, and the rest of the parties at the bottom. To make the figures clearer, the scores of small parties were cumulated and presented as "Others." The label "Others" includes
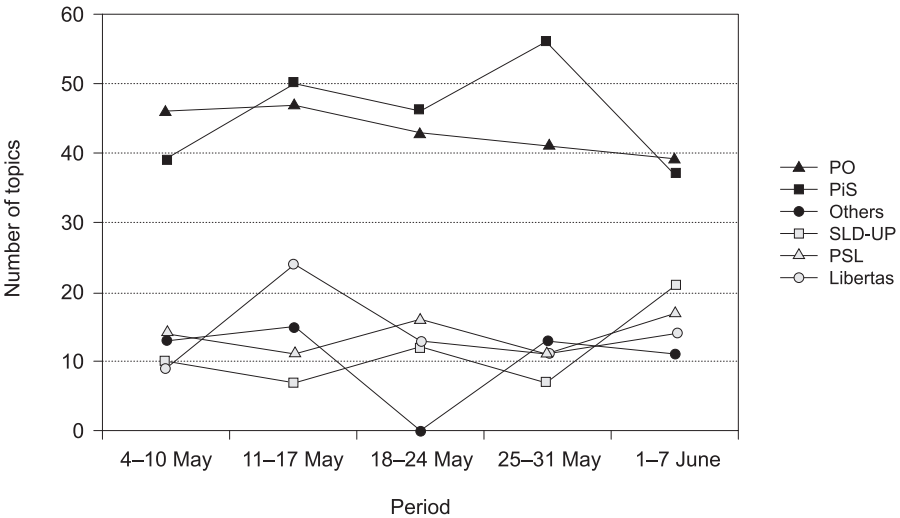

Figure 2. Topics presented on Interia.pl
Source: author's elaboration.

the following parties: PdP-CL, PPP, PRP, SO, and UPR. Only by collecting their popularity, these parties situate themselves in the group of middle-importance parties. Thus their poor performance during the election comes as no surprise. None of these parties has been able to surmount the 5% threshold required to win seats. Libertas Poland did not make it either, but its coverage in the media was considerably higher and thus this party is treated separately. Figure 2 presents the results for Interia.pl.

Once again, PiS and PO, two most widely covered parties, are separated from the rest. Please note, though, that the number of topics differs between portals. On Gazeta.pl PiS could count on the coverage at the level of 40 to 70 topics a week. On Interia.pl it is almost 40 to almost 60. These results coincide with the general policies of those portals. Interia.pl publishes less topics, but they are displayed for longer periods of time. On the other hand, Gazeta.pl takes the topics off the agenda faster, which is a natural consequence of publishing larger amounts of news during the day. Figure 3 presents the results for Onet.pl.
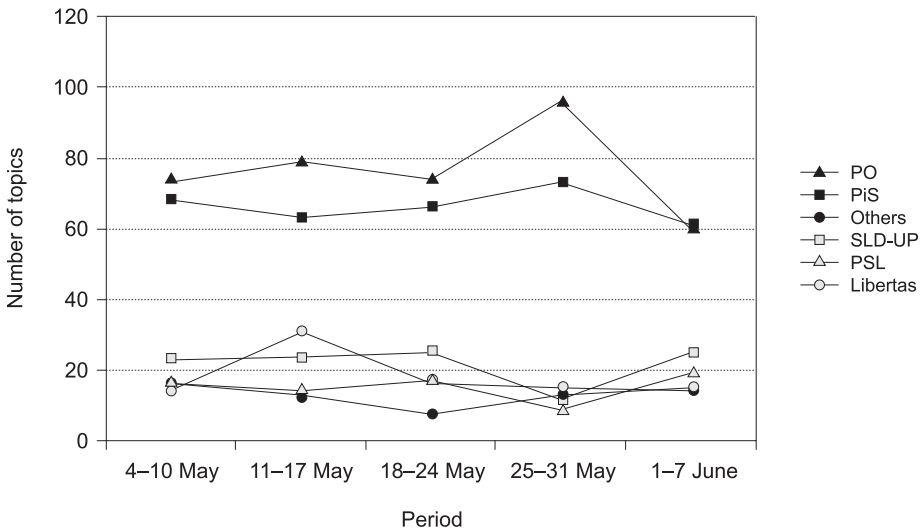

Figure 3. Topics presented on Onet.pl
Source: author's elaboration.

Once again, the numbers of topics differ between portals, but the general policy seems similar to two previous cases. Overall, Onet.pl is displaying the largest amounts of news a day and this regularity is also observable for the agenda-setting of political parties. The numbers of topics for PiS oscillate between 60 and 80. In case of PO it is almost 80 for first three weeks of the study, then, in the fourth week (a week before the election), the number rises to almost 100 and only in the last week it falls to 60. The fall in the last week can be explained by the campaign silence. During this week there was one day (Saturday) of campaign silence and thus the scores for the last week are actually showing the news coverage of six days.

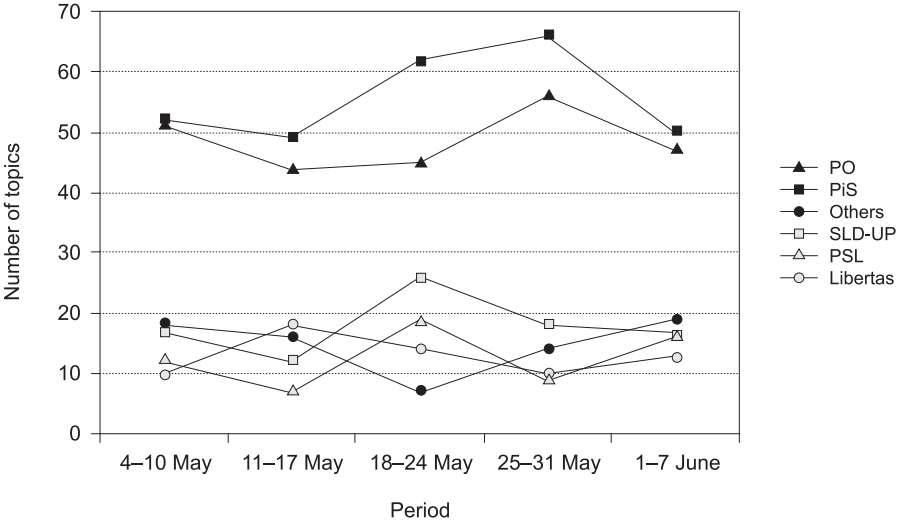WP.pl is not much different when compared with the other portals. Figure 4 illustrates this condition.

Figure 4. Topics presented on WP.pl
Source: author's elaboration.

All four portals were quite consistent in setting the agenda for the political parties. The division between the two major parties and the rest of political scene is unambiguous. This pattern is observable for all four portals. The numbers of topics may be higher for PiS in some cases and for PO in others. Nevertheless, in comparison to other political parties, the dominance of PiS and PO in the media is obvious. We must not forget, though, that it is not only the numbers that matter, but also the attitude of journalists and their bias enclosed in the articles they write. But, since this level of analysis is omitted in this research, we assume that there is no such thing as bad publicity. More is better than less.

Until now, we have used only the number of topics to indicate the extent of the media coverage for particular party. We can do more. Given the display times of certain articles and a record of positions at which each of the articles has been displayed in the news box we could present the figures for each variable. However, we will go a step further and present the results for these three variables combined (number of topics, their average position and their display time).

Internally, from software's point of view, each day is a separate unit of analysis. We stick to this setting and basing on it we are constructing an **agenda-setting index** (Mensing, 2004, p. 7) by ascribing points for all three variables for each day for each political party. The best score possible for a single day is 30. Ten points for ten or more topics. Plus ten points for an average position in range between 1.00 and 1.49 (i.e. the articles for given party were displayed on the first place for most of the time,

but there were also some articles at further positions; still, the dominance of the first position was significant enough to keep the average position below 1.50). Ten points for 28 or more hours in sum of displaying topics. Respectively, for nine topics it is 9 points. For an average position between 1.50 and 2.49 it is 9 points. And 9 points for display time between 25 and 27 hours and so on. The decision of setting the display time boundary at the level of thirty hours is based on by-hand analysis of the sums of display times. Thus, the maximum display time value is context-dependent and should not be used in other research without investigating the data first. Nevertheless, in the case of this research we consider this value well tweaked. Table 2 presents the intervals for particular variables and the points ascribed by interval.

Table 2. The intervals for "number of topics," "display time" and "average position" variables and the points ascribed by interval

Points	Number of topics	Display time (in hours)	Average position
1	1	0–3	9.50 or more
2	2	4.0–6.0	8.50–9.49
3	3	7.0–9.0	7.50–8.49
4	4	10.0–12.0	6.50–7.49
5	5	13.0–15.0	5.50–6.49
6	6	16.0–18.0	4.50–5.49
7	7	19.0–21.0	3.50–4.49
8	8	22.0–24.0	2.50–3.49
9	9	25.0–27.0	1.50–2.49
10	10 or more	28 or more	1.0–1.49

Source: author's elaboration.

Given this system of ascribing points, as we have said before, the maximum score for a single day is 30. For a single week the maximum is 210 points (a sum of thirties from seven days). By the use of this index we are measuring the overall exposure level of particular party on particular portal.

The following four figures present the weekly agenda-setting indexes by political party portal by portal.

As we can see, the results are coherent with what we have seen previously. The most interesting thing is that the results for PiS and PO almost infest themselves. It means that, even though the amounts of topics could differ between parties, when we acknowledge the importance of display time and display position, the importance level for both parties seems to be almost identical.

We can also observe some minor changes in the order of the occurrences of smaller parties compared to Figure 1. Figure 6 confirms that the situation on Interia.pl holds on to the general patterns observed so far.
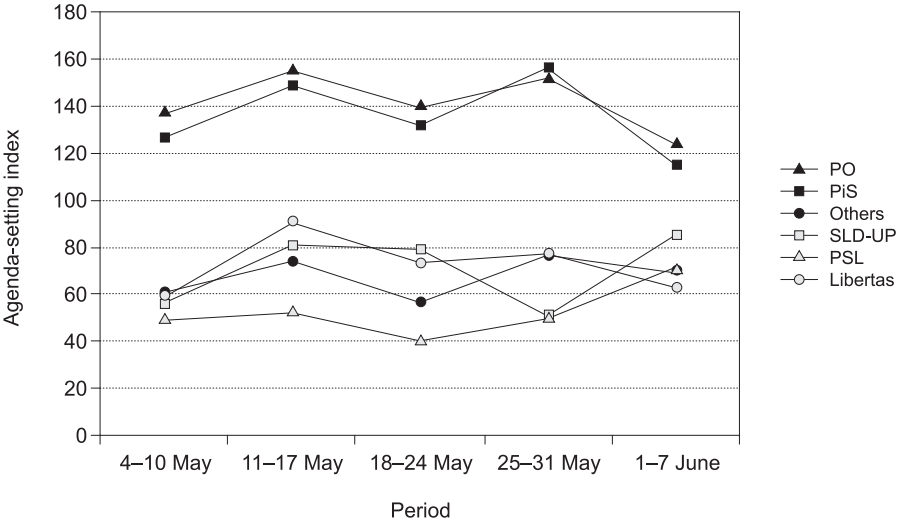
Figure 5. Agenda-setting indexes for Gazeta.pl, by political party

Source: author's elaboration.

There is one thing worth pointing out especially: by acknowledging the display time factor (higher for Interia.pl than for other portals, because this portal generally displays news for longer periods of time) the results are nicely comparable with the results for Gazeta.pl. As we will see soon, it also applies to WP.pl. In the period of May 18–24, Interia.pl did not publish any articles concerning "Other" parties. No data loss happened in this period. The Internet archives of Interia.pl were searched and all articles found in this period were checked against the database. None of
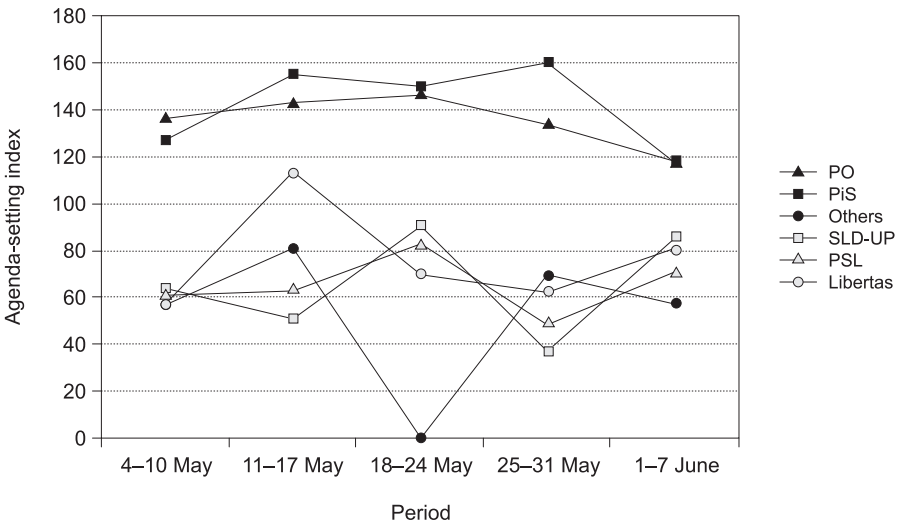

Figure 6. Agenda-setting indexes for Interia.pl, by political party
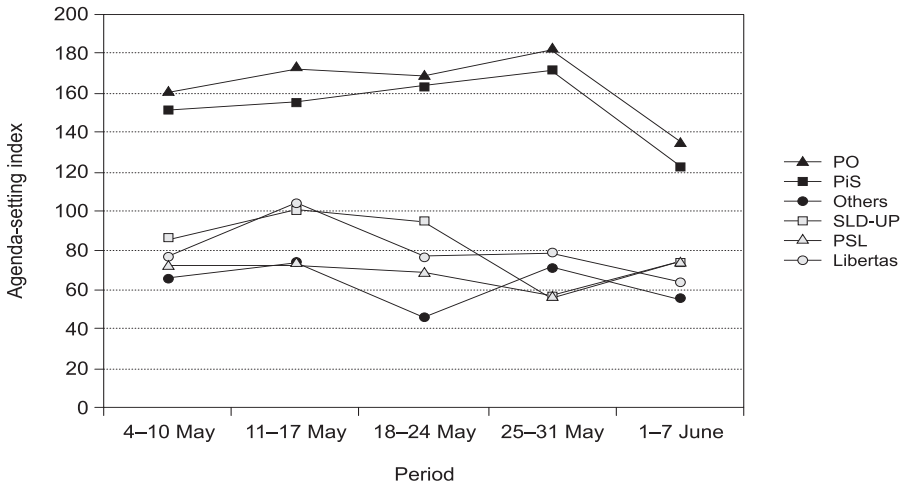
Source: author's elaboration.

Figure 7. Agenda-setting indexes for Onet.pl, by political party

Source: author's elaboration.

these articles appeared in the news box in this period. They were published in other parts of the news portal. Figure 7 presents the results for Onet.pl.

The policy of Onet.pl (to publish more for shorter periods of time) results in higher ranges of points acquired by particular political parties. Nevertheless, the pattern remains intact. The results for WP.pl are displayed on Figure 8.
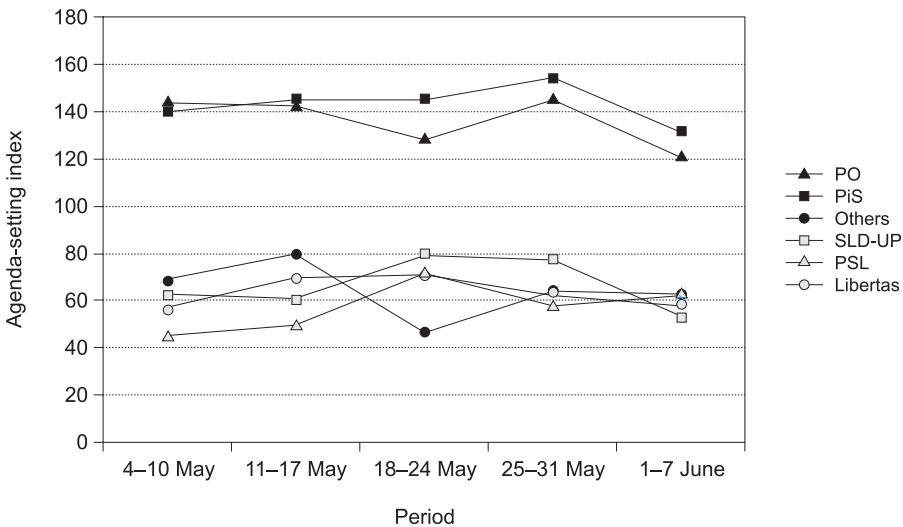

Figure 8. Agenda-setting indexes for WP.pl, by political party

Source: author's elaboration.

To compare the results of our study with the election results we will use the agenda-setting indexes rather than the numbers of topics only.

THE AGENDA-SETTING INDEXES AND THE ELECTION RESULTS

The agenda-setting indexes computed in the previous step are used to obtain the relative frequency distribution. First, we sum all five weekly indexes for each political party. The sum of these sums constitutes total index value for each portal. Based on this values we are able to compute the percentage distribution of agenda-setting indexes. The agenda-setting indexes and its percentage distribution for each portal are presented in Appendix B. After counting the frequencies for every news portal, we can compare the computations with the election results. Table 3 displays the results.

Table 3. Percentage distribution of agenda-setting indexes by portal and political party

Party name	Election results	Interia.pl	Gazeta.pl	Onet.pl	WP.pl
Libertas	1.14	14.23	13.41	13.13	11.97
PiS	27.4	26.42	25.16	25.24	26.92
PO	44.43	25.19	26.19	26.99	25.6
PSL	7.01	12.15	9.74	11.37	10.81
SLD-UP	12.34	12.18	13.04	13.54	12.54
Others	7.68	9.84	12.45	9.65	12.16
	100.00%	100.00%	100.00%	100.00%	100.00%

Source: author's elaboration.

The scores for PiS and SLD-UP are quite consistent between the election results and the results for each portal. PSL scored a bit less in the election than in the media. Despite similar coverage for PiS and PO, the latter did a lot better in the election. For Libertas Poland it is the opposite: good scores in the media did not turn out as well in the election as the media coverage would suggest. The results are visualised on Figure 9.
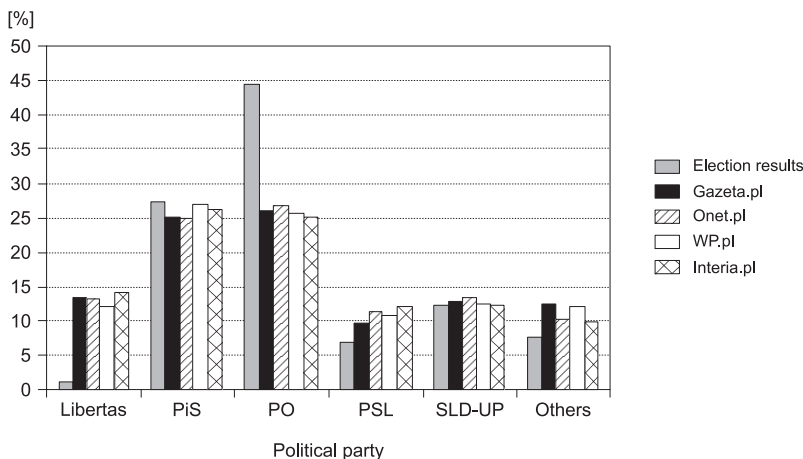

Figure 9. The election results compared to the agenda-setting indexes

Source: author's elaboration.

Two questions arise: why did Libertas Poland fail in the election and why did PO do so well?

LIBERTAS AND PO: WHAT HAS HAPPENED?

Two uncommon phenomena emerge from the data presented above. First, very poor performance of Libertas Poland compared to its agenda-setting indexes for all four news portals. Second, incredibly good scores of PO compared to its agenda-setting indexes.

Agenda-setting indexes for PO and PiS were very similar. Nevertheless, the electoral score of PiS reflects its agenda-setting index, while for PO it does not. The difference is clearly seen with plain eye. Thus the question we could ask is: what were the differences in reporting about these two parties on all four portals? We cannot answer this question here. The usefulness of quantitative methods ends here and the area for qualitative analysis emerges.

The case of Libertas Poland is similar, but not identical. We lack a good point of comparison like PiS *versus* PO in the example above. We cannot treat the other minor parties as a point of comparison. As an entity they cannot be considered a rightful unit of analysis in the content analysis. The question seems to be: was the reporting of Libertas Poland thoroughly negative? Answering this question with appropriate content analysis should lead us to the answer, or at least to the pointers for our further steps.

CONCLUSIONS

The advent of the Internet has opened up new opportunities for agenda-setting research. In comparison to the television or the press data gathering and processing became much easier, at least as long as we deal with searchable, text-only data.

In this paper we have shown how far we can go with the quantitative methods implemented in our tool until now. We have also outlined the area for qualitative research. Our next step is to develop Polish-language parsing tools. We doubt that it could be an ultimate step, an all-problems solver. Still, such functionality should help us reduce the complexity of the research object and point our attention to these parts of the constant stream of data, which really matter.

This study has compared media agenda of four Polish Internet news portals. Quantitatively their agenda is similar. The qualitative questions about particular portal's bias remain unanswered. The study showed that there is an easily visible difference between the agenda-setting index for Libertas Poland and PO and their gains in the election. Our assumption is that *what* (and not only *how much*) has been said about these parties played a role in their performance in the election (but we do not suggest mono-causality). All-in-all there may be a bad publicity. Of course, there are also other possible explanations. The Internet is not the only source of

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information. Television still holds the top position. Thus maybe the election results reflect the agenda-setting in the television or the press? Or, the voters' views were fixed before the campaign even started and there was not much place for change?

The research tool used in this study was designed to carry out the constant monitoring of the media. Its features were constructed with the automation (both of gathering as well as processing the data) in mind. Nevertheless, we think that it may be useful in traditional agenda-setting research.

APPENDIX A

Table 1. Polish political parties: acronyms, full names and English translation

Acronym	Full name	English translation
PO	Platforma Obywatelska	Civic Platform
PiS	Prawo i Sprawiedliwość	Law and Justice
SLD-UP	Sojusz Lewicy Demokratycznej – Unia Pracy	Coalition Democratic Left Alliance – Labor Union
PSL	Polskie Stronnictwo Ludowe	Polish People's Party
PdP-CL	Porozumienie dla Przyszłości – CentroLewica (PD+SDPL+Zieloni 2004)	Coalition Agreement for the Future – CenterLeft
PRP	Prawica Rzeczypospolitej	Right of the Republic
SO	Samoobrona Rzeczpospolitej Polskiej	Self-Defense of the Republic of Poland
Libertas	Libertas	Libertas Poland
UPR	Unia Polityki Realnej	Real Politics Union
PPP	Polska Partia Pracy	Polish Labour Party

Source: National Electoral Commission, 2009a.

APPENDIX B

Table 1. Agenda-setting indexes and its percentage distribution for Gazeta.pl

Political party	Period					Total	%
	4–10 May	11–17 May	18–24 May	25–31 May	1–7 June		
Libertas	59	90	73	77	63	362	13.41
PiS	127	149	132	156	115	679	25.15
PO	137	155	139	152	124	707	26.19
PSL	49	52	40	50	72	263	9.74
SLD-UP	56	81	79	51	85	352	13.04
Others	61	74	56	76	69	336	12.44
						2699	100

Source: author's elaboration.

Table 2. Agenda-setting indexes and its percentage distribution for Interia.pl

Political party	Period					Total	%
	4–10 May	11–17 May	18–24 May	25–31 May	1–7 June		
Libertas	56	113	70	62	81	382	14.23
PiS	127	155	150	160	117	709	26.41
PO	136	143	146	133	118	676	25.18
PSL	61	63	83	48	71	326	12.14
SLD-UP	64	51	90	37	85	327	12.18
Others	56	81	0	70	57	264	9.83
						2684	100

Source: author's elaboration.

Table 3. Agenda-setting indexes and its percentage distribution for Onet.pl

Political party	Period					Total	%
	4–10 May	11–17 May	18–24 May	25–31 May	1–7 June		
Libertas	77	104	77	79	64	401	13.13
PiS	152	156	164	171	123	766	25.08
PO	161	172	169	182	135	819	26.81
PSL	72	72	69	57	75	345	11.29
SLD-UP	85	101	94	56	75	411	13.45
Others	66	74	46	71	55	312	10.21
						3054	100

Source: author's elaboration.

Table 4. Agenda-setting indexes and its percentage distribution for WP.pl

Political party	Period					Total	%
	4–10 May	11–17 May	18–24 May	25–31 May	1–7 June		
Libertas	57	70	71	62	58	318	11.97
PiS	140	145	145	154	131	715	26.92
PO	144	142	128	145	121	680	25.60
PSL	45	50	72	58	62	287	10.80
SLD-UP	63	61	79	77	53	333	12.53
Others	69	80	47	64	63	323	12.16
						2656	100

Source: author's elaboration.

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REFERENCES

Drew, D., Weaver, D. (2006). Voter learning in the 2004 presidential election: Did the media matter? *Journalism & Mass Communication Quarterly*, 83 (1), pp. 25–42.

European Elections. (2009). *Poland*. Retrieved: November 1, 2009, from: http://www.europarl.europa. eu/parliament/archive/elections2009/en/poland_en_txt.html

Gibson, R.K., Margolis, M., Resnick, D., Ward, S.J. (2003). Election campaigning on the WWW in the USA and UK. A comparative analysis. *Party Politics*, 9 (1), pp. 47–75.

Hindman, M. (2005). The real lessons of Howard Dean: Reflections on the first digital campaign. *Perspectives on Politics*, 3 (1), pp. 121–128.

Kaid, L.L. (2003). Effects of political information in the 2000 presidential campaign. Comparing traditional television and Internet exposure. *American Behavioral Scientist*, 46 (5), pp. 677–691.

Kaid, L.L., Postelnicu, M. (2005). Political advertising in the 2004 election. Comparison of traditional television and Internet messages. *American Behavioral Scientist*, 49 (2), pp. 265–278.

Lawson-Borders, G., Kirk, R. (2003). Blogs in campaign communication. *American Behavioral Scientist*, 49 (4), pp. 548–559.

Lusoli, W. (2005). A second-order medium? The Internet as a source of electoral information in 25 European countries. *Information Polity*, 10 (3–4), pp. 247–265.

McCombs, M., Shaw, D.L. (1972). The agenda-setting function of mass media. *The Public Opinion Quarterly*, 36 (2), pp. 176–187.

Megapanel PBI/Gemius. (2009). *Research results*. Retrieved: November 1, 2009, from: http://panel.pbi. org.pl/wyniki.php.

Mensing, D. (2004). *Examining the media agenda: How traditional and online media presented the 2000 and 2004 presidential primaries*. Retrieved: November 1, 2009, from: http://banners.noticiasdot. com/termometro/boletines/docs/marcom/comunicacion/utexas/2004/utexas_donica.pdf.

National Electoral Commission. (2009a). *Press conference announcement of NEC held on 8 June 2009 21.15 CET at the headquarters of NEC*. Retrieved: November 1, 2009, from: http://pe2009.pkw.gov. pl/ALL/pliki/DOKUMENTY/komunikaty/announcement0806_0740.pdf.

National Electoral Commission. (2009b). *Voting results*. Retrieved: November 1, 2009, from: http:// pe2009.pkw.gov.pl/PUE/EN/WYN/W/index.htm.

Peters, T. (2009). *Difflib – Helpers for computing deltas*. Retrieved: November 1, 2009, from: http:// docs.python.org/library/difflib.html.

Pew Research Center. (2008). *Social Networking and Online Videos Take Off. Internet's Broader Role in Campaign 2008*. Retrieved: November 1, 2009, from: http://people-press.org/reports/pdf/384. pdf.

Tatnall, A. (ed.). (2005). *Web Portals: The New Gateways to Internet Information and Services*. Hershey, PA: Idea Group Publishing.

Walczak, W. (2009a). Internetowe portale informacyjne: analiza z użyciem zautomatyzowanych narzędzi badawczych (i pierwsze wyniki) [Internet News Portals: an Analysis with the Use of Automated Research Tools]. In: Sokołowski, M. (ed.). *Media a komunikowanie polityczne* [Media and Political Communication]. Toruń: Wydawnictwo Adam Marszałek, pp. 296–316.

Walczak, W. (2009b). Jak badać internetowe portale informacyjne? Przykład analizy zautomatyzowanej [How to Research Internet News Portals? An Example of an Automated Research]. In: Gackowski, T. (ed.). *I Ogólnopolski Zjazd Analityków Mediów pt. „Mediokracja a Demokracja"* [First All-Poland Media Analysts Meeting Titled "Mediocracy and Democracy"]. Warszawa: Instytut Dziennikarstwa UW, pp. 126–138.