Wit Hubert

REPRESENTATION OF SELECTED ENERGY TOPICS ON THE POLISH INTERNET

Introduction

According to Niklas Luhmann, contemporary media should be treated as "the evolutionary achievements that enter at those possible breaks in communication and that serve in a functionally adequate way to transform what is improbable into what is probable" (Luhmann 1995: 160). The role of the media is therefore to provide order to the information world by linking broadcasters with users (van Dijk 2006: 26). This continual transmission of the information contained in symbols by self-reproducing media networks accompanies individuals in all decision-making processes. The media – both traditional (press, radio, television) – and new (internet) are an intrinsic element of the organisation of social life, including the processes taking place in the public sphere. It is thanks to the information transmitted through the media that social actors are able to make political decisions, and thanks to the media that the social order is reproduced and power is legitimised (or delegitimised), or, more broadly, the social structure is reproduced (van Dijk 2006). The discourse itself is a "tool" of the deliberative processes leading to political and economic decisions, as well as of semiotic visibility, which was discussed in the introduction to this book.

In order to more precisely define the roles and places of new media (especially the internet) in the socio-political system, we need to briefly recall the features that characterise these forms of communication. Important here are the constitutive characteristics of new communication technologies,

such as interactiveness, integration (multimedia) and hypertextuality (see Introduction). These characteristics are responsible for the transition from mass communication towards distributed communication. The "few to many" communication model is replaced by a "many to many" model, which in theory favours a large differentiation of broadcasters and a demassification of media (Goban-Klas 2004). As noted by van Dijk, "the new media cause a shift from allocution towards consultation, registration and conversation" (van Dijk 2006: 12). This means that the internet helped to leave behind a model in which the subject matter, time and speed of contents were up to broadcast centres (allocution model). The turn towards other models of communication (consultation, registration and conversation) leads to empowerment of peripheral (local) individuals.

In order to understand how the popularisation of new media can change the structure of communication in systems of holding power, let us recall the features of new media identified by Marc Smith. The "five As" characterising communities built via the internet, Smith writes, is that they are aspatial, asynchronous, acorporal, astigmatic and anonymous (Smith 1992). If we assume that these are also characteristics of internet discourse, then online public communication partly corresponds to Jürgen Habermas's conditions of an ideal communicative system. Some forms of internet communication seem to fulfil the conditions of inclusiveness of the public sphere. These are the associated equality of the participants in the communication, voluntary expression of opinions or lack of self-excluding fallacies and illusions (Habermas 2008).

As Barry Wellman (2001) points out, it is mostly the low transmission costs and asynchronicity of internet communication that increase citizens' engagement in it. This, he argues, helps to break individual and group particularisms. Solidarity based on an internet model can be more effective, owing to the spatial dispersal and heterogeneity of the actors communicating with each other (Wellman 2001). Robert Putnam, meanwhile, believes that internet communication has the chance to be less burdened by the hierarchical nature of the communicative structure, meaning that more pluralistic dialogue can precede the adoption of solutions (Putnam 2000). According to Anthony Giddens, "where television and newspapers [...] are dominated by commercial interests, they do not provide a focus for democratic discussion. Yet public television and radio, together with the Internet, offer many possibilities for developing open dialogue and discussion" (Giddens 2006: 119).

Unfortunately, the above conclusions are considerably limited in their explanatory potential. Firstly, they do not derive from thorough empirical studies. Secondly, they refer to the state of the internet from over a decade ago, and moreover were made on the basis of observation of the American

part of it. Thirdly, the internet is treated as a relatively homogeneous medium. This is a gross category error of sorts, meaning that we assume the similarity of all phenomena triggered by the popularisation of this technology (Geiger 2009). Yet the internet is in fact many different digital technologies integrating diverse communication models. To evaluate the influence of such different tools as forums, blogs, vlogs and social networking sites on civic participation it is necessary to abandon thinking about the internet as a "uniform and finite" medium.

Matters are complicated by the fact that the internet has also become an extension of traditional media: press, radio and television. One of the main dimensions describing individual internet technologies is who sends the messages. What proves to be most important is whether it is a professional media worker or an amateur. The former case concerns publications by journalists posted on web portals. The latter type of broadcasters are individuals publishing on forums, social networks or sometimes also the blogosphere. The following analysis of the energy discourse will be described from a perspective that highlights this division of the internet space. First, though, let us examine what internet discourse itself is.

Analysis of the models of social discourse proposed below shows that the key categorisation can be based on the type of medium mediating in a given dialogue. For this analysis I distinguish four levels of discourse: social (transmitted by speech, text not made public), media (transmitted by the media, e.g. press, radio, TV), internet (via internet 1.0 technologies) and social internet (via internet 2.0 technologies, e.g. social networking sites). We can differentiate this division on the basis of the types of mediating technologies (see Figure 1) or in terms of the source of the published contents (see Figure 2).

At this point we should note that the social discourse is presented in not linguistic or philosophical terms, but rather sociological ones, whereby it is almost identical to the concept of the public sphere. I understand this to mean "a discursive space in which strangers discuss issues they perceive to be of consequence for them and their group. Its rhetorical exchanges are the bases for shared awareness of common issues, shared interests, tendencies of extent and strength of difference and agreement, and self-constitution as a public whose opinions bear on the organization of society" (Hauser 1999: 64). What is important here, though, is the concept of media discourse that I propose understanding, following Małgorzata Lisowska-Magdziarz, as "a set of ways of deliberate, non-accidental use of language to communicate information, opinions, values, concepts, and the views of media on various subjects" (Lisowska-Magdziarz 2001). When these communicative practices are transmitted through computer networks, this becomes internet discourse. In such cases where those sending messages on the

internet are not professional broadcasters and the content appears on forums, blogs and online communities, I see this as "internet community discourse."

The most important information that can be interpreted from this simplified outline is that any content can, but does not have to, function in all designated areas (Figure 1). A discussion on a blog will always constitute an element of social discourse (speech situation). Yet it does not necessarily concern the issues present in mainstream media, both those conceived as traditional (e.g. newspaper, radio station) and internet ones (web portals). From the technological point of view (Figure 2), each newer technology must contain older technologies. Social networking sites, for example, use text present in all other "discourse technologies."
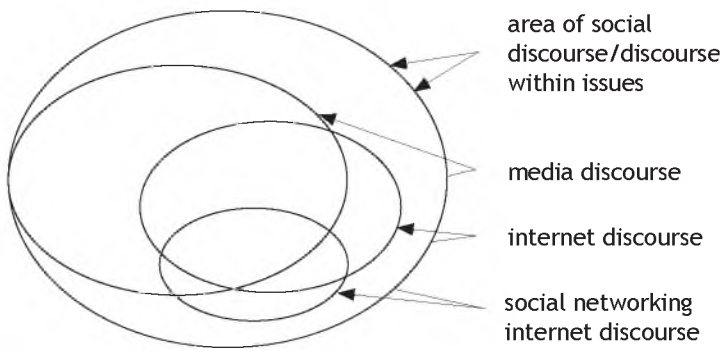

area of social discourse/discourse within issues

media discourse

internet discourse

social networking internet discourse

Figure 1. Discourse outline – content model
Source: own elaboration.

area of social discourse/discourse within issues

media discourse

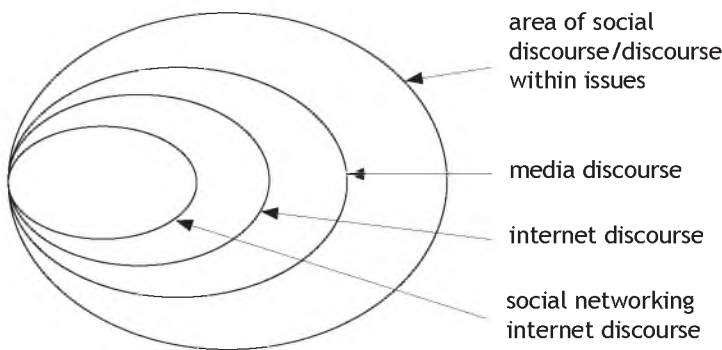internet discourse

social networking internet discourse

Figure 2. Discourse outline – technological model
Source: own elaboration.

Methods used in analyses

The below analysis is based on data gathered during research carried out within the grant "The media as a deliberative plane – an analysis of models of public discourse based on the example of key energy issues in Poland: building of a nuclear power station, shale gas exploitation and wind energy." At the research planning stage a comparative analysis of the construction of media discourses around selected energy issues was planned. Alongside television, radio and the press, the internet as a whole was one of the areas considered a potential space for deliberation among social actors. The scope and character of the material collected was thus not originally designed for studying the relations between the expert internet and the community internet. Rather, it was supposed to serve to reconstruct the areas of online communicative actions as well as the narratives generated there. However, these relations were observed during collection of the material and analysed as far as possible.

This chapter therefore aims to provide a qualitative description of the internet discourses functioning within selected energy issues. The analysis that follows describes the representations of issues discussed in the media (expert discourse) as well as the accompanying dynamic of increase in statements made by web users (social media discourse). This analysis is not, then, comparative in a quantitative sense. It provides a reconstruction of the maps of mutual links between actors, topics and issues.

The results presented below are based on:
1) qualitative analysis of selected news and industry websites
2) quantitative analysis of social media trends.

The first area of analysis encompasses a survey of the texts written by professional journalists and opinion formers published on Poland's top information and industry websites. Some texts are reprints – copies or slightly amended versions of press articles. We shall call this research area "expert internet discourse." The second area comprises contents appearing on social media, forums and blogs. These contents are usually published by internet users, who may be professional or not, but are not regular editorial contributors. I will use the category "social media internet discourse" for this kind of content.

For the first survey, the database was collected with the aid of the company Press-Service Monitoring Mediów and supplied in the form of a library of .xml and .pdf files. The necessary data for analysing social media content was provided by the company SentiOne, and the analysis was conducted in a data provider online service.

All three categories of energy areas constituted a foundation for classifying texts on account of the occurrence of accordingly selected key words. In both cases, the sample selection was inspired by "trends analysis" (nesting of in-

formation). This means that we selected periods characterised in the written press (reference medium) by the greatest number of publications (see Table 1).

Table 1. Periods of transmission of analysed publications

Nuclear	25 Nov–7 Dec 2013	27 Jan–8 Feb 2014	24–29 Mar 2014
Shale gas	17–30 Nov 2013	6–20 Jan 2014	10–16 Mar 2014
Wind	15–29 Apr 2013	20 Oct–2 Nov 2013	20–26 Mar 2014

Source: own elaboration.

Study of expert internet discourse – method

The unit of analysis for the "expert internet" comprised journalistic texts appearing on Polish internet sites. The material selected for the key words analysis consisted of 580 articles posted on the eight largest Polish news and industry websites (December 2014, Megapanel PBI/Gemius data). The news sites are dominated by Gazeta.pl, Onet.pl, Interia.pl and Dziennik.pl. Energy issues were also presented on industry websites – we made use of press materials appearing on the following sites: Cire.pl (Energy Market Information Centre) and Wnp.pl (Virtual New Industry – Economics Portal).

An important characteristic of the internet as an information source is the fact that content is often repeated and reproduced on many websites. The hypertextuality of the web means that one text can often function on a few sites in an identical or similar form. As a result, we had to conduct a three-stage sample selection.

1. The objective of the first step was to make the sample selection. The method is described in more detail in A. Wagner, "Organising the Research".
2. We then, using the Python language libraries, made an automatic selection of repeated texts. At this stage we eliminated repeated texts on the basis of similarity of titles. We also converted files to HTML format, in accordance with the demands of the QDA Miner analysis software.
3. The third stage of the sample selection concerned 508 texts published on the Polish internet in the selected periods. Here, at the coding stage, the researchers rejected repeated texts that had not been eliminated automatically in the second stage.

The final study sample consisted of 404 texts published in the periods presented in Table 1. The materials categorised as referring to issues of shale gas and oil therefore numbered 210 (52% of the sample). Texts on nuclear energy comprised 30.2% of the sample (122 cases), and wind energy issues

were represented in 72 articles (almost 18% of the sample). Although there were some texts that examined issues from the three energy areas, all three sets of texts were separate. The coders therefore had to decide which of the topics was dominant in a given texts, in this way assigning them one of the three values of the variable "research area/unit of analysis."

Since we also observed repetition of texts on industry sites (Cire.pl, Wnp.pl) and general online portals, the texts from the first publication were used for the analysis. In many cases, source texts offered a more comprehensive description of a problem than their "reprints." To some extent, the phenomenon of reproduction of contents on the internet explains the overrepresentation of texts appearing on Cire.pl.

Table 2. Structure of study sample by energy areas

Research area/unit of analysis	Number of cases	Percentage of cases
shale gas_internet	210	52.0%
nuclear_internet	122	30.2%
wind_internet	72	17.8%
	404	100%

Source: own elaboration.

Table 3. Structure of study sample by information sources

Websites analysed	Number of cases	Percentage of cases
cire.pl	195	48.3%
wyborcza.biz.pl	84	20.8%
wiadomosci.onet.pl	45	11.1%
wnp.pl	36	8.9%
fakty.interia.pl	30	7.4%
wiadomosci.dziennik.pl	7	1.7%
wideo.onet.pl	4	1.0%
tygodnik.onet.pl	3	0.7%
	404	100%

Source: own elaboration.

Study of social media internet discourse – method

Research on the trends in social media is an important complement to analysis of the expert discourse. The data provided by SentiOne comprises statements selected by the keywords method from a database encompassing social media

sites, microblogs, internet forums, blogs and comments on web portals, video sites and opinion comparison services. The results were obtained on the basis of monitoring of over 2.9 million statements originating on the Polish internet, published between April 2013 and April 2014. Users' posts were collected automatically using web crawlers (indexing robots). This tool permits collection only of statements of a public nature, i.e. those available to people who are not in the writers' private social networks. Discussions taking place, for example, in social groups were therefore omitted. Researchers also do not have access to contents posted in various expert niches and closed online groups, i.e. areas of the "deep web."

It is important to note that this type of sample selection differs in several ways from that used for description of the "expert discourse." First, it is conducted on data aggregated with the service provider. All lists are limited by the interface of the provider's analytical panel. Second, the analysis is limited only to a quantitative analysis of the intensity of statements of users of the websites in the study. No qualitative content analysis was conducted on the collected materials. The text selection was carried out using an automated keywords method, without corrections from an analyst or coder. This resulted in a lack of control over the sample quality and made it hard to assess the reliability of the survey. The data collected in this part were therefore supplementary, and could not be used for a comparison with the data from the "expert discourse." Yet they are of significant value for checking the frequency with which topics are referred to by people making their statements publicly visible. This is useful as we will be particularly interested in whether the intensity of the expert internet discourse goes hand in hand with an increase frequency of statements of social media users. Does the media visibility of subjects in the public sphere then generate a growth in their visibility in discussions on the cusp of the public and private spheres, and can social media discourse therefore influence the agenda of issues?

Expert internet energy discourse

Summing up the results, we can state that this area was dominated by politicians (mostly domestic, parliamentary), who were the actors – both primary and implicated – who appeared most frequently (see Figure 3). In the diagrams provided below, the size of the circles shows the frequency of a value of a given variable (actors category). The thickness of the line indicates the number of mutual links between the categories shown in the course of the cluster analysis. The colours of the circles reflect the number and type of cluster (number of clusters limited to 5).

The issues discussed generally occurred together with the representatives of companies as experts on the energy market. Furthermore, this discourse is clearly dominated by men. In the category of collective actors, meanwhile, the debate was based on the state–company axis, with a relatively significant representation of European institutions (see Figure 4). Of course, the list of coded categories of the actors who build the discourse is considerably longer, but the above categories are the dominant ones. This order applies to all the energy areas we studied.
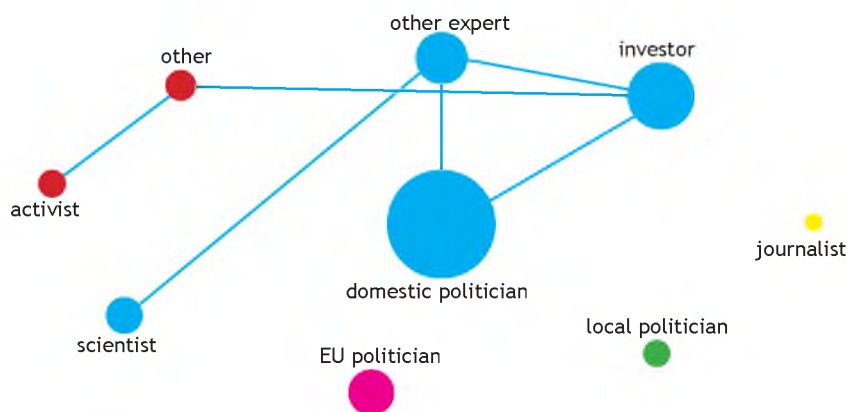
Figure 3. Co-occurrence of codes of combined categories: individual primary and implicated actor (number of groups 5, Jaccard index)
Source: own elaboration.
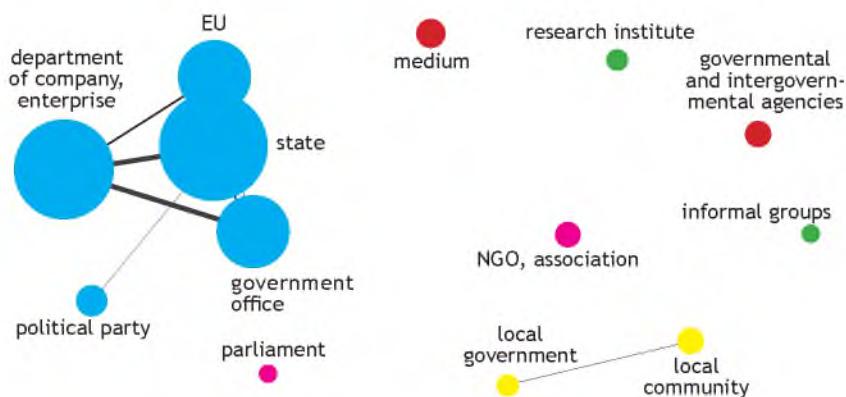
Figure 4. Co-occurrence of codes of combined categories: collective primary and implicated actor (number of groups 5, Jaccard index)
Source: own elaboration.

The actors who appear in the texts are the main source of the knowledge that functions within them. This is usually empirical knowledge, i.e. it derives from research or experiments (Figure 5). The below bubble charts illustrate the frequency of occurrence of the values of a given variable (type of knowledge or place of its generation) in relation to all occurrences of a given variable (cases of use of knowledge), divided into the researched fields (areas of energy issues). Column percentages were used.
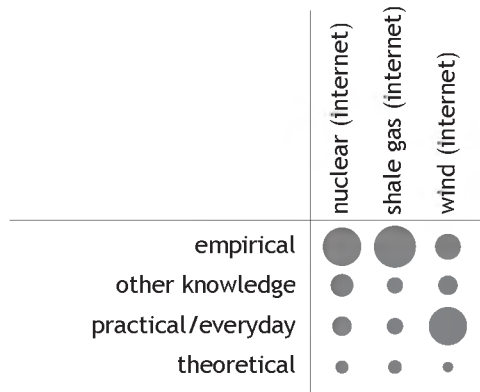

Figure 5. Categories of knowledge functioning in the individual areas of the analysed discourse

Source: own elaboration.

The practical knowledge resulting from individuals' experience can also be distinguished. This type is present to a greater extent in texts on wind energy. The knowledge that appears has not only broadcasters, but also sources and places of generation. The cited knowledge usually comes mainly from public opinion research centres and expert reports of ministerial institutions (Figure 6). These are not the only areas of knowledge generation present in the energy discourse, of course, but they are clearly dominant. Notable here is the relatively limited role played by Polish science (research institutions as the place of knowledge generation) and Polish scientists.

Knowledge is generally accompanied by arguments, which appear in such forms of rationalisation as describing possible gains or losses, presenting numerical data, quoting authorities or demonstrating benefits. Alongside knowledge, ignorance is another rhetorical element. This occurred not only much less often than knowledge, but also relatively independently from it, which we can view as showing a lack of direct connections.

Analysis of the legal acts cited by actors shows that domestic (Polish) legislation is dominant as a source of law. European Union laws are quoted

much less frequently in the texts. Direct references to the constitution ap-
peared only in the case of wind energy. This no doubt shows a connection to
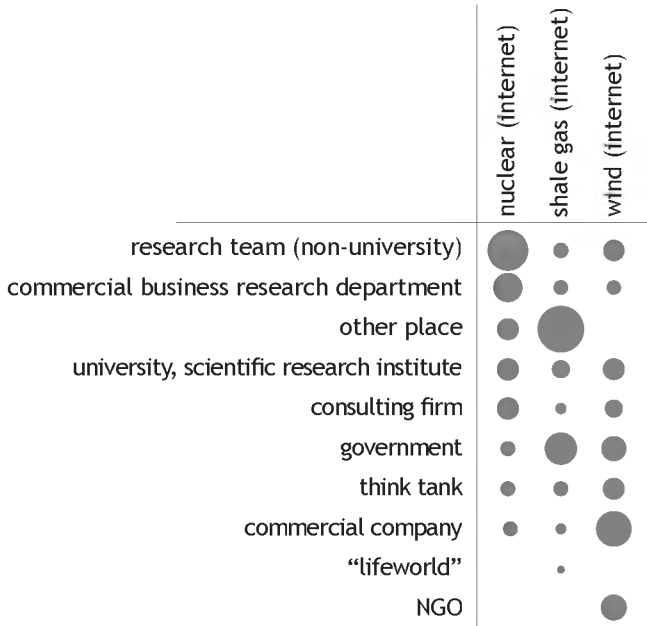references to axionormative systems.

Figure 6. Place of generation of knowledge functioning in the individual areas of the
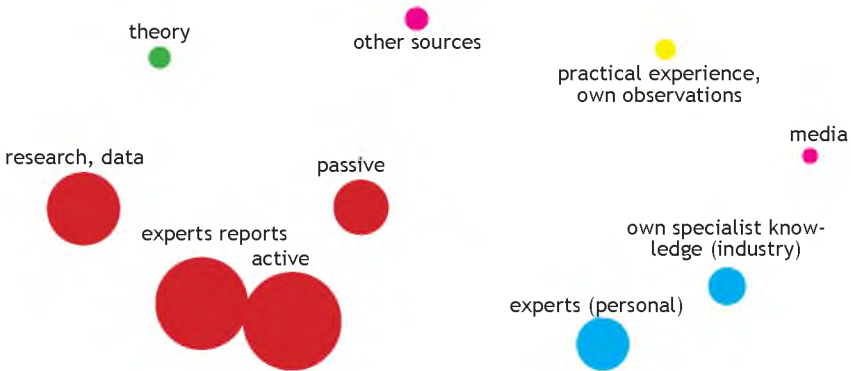analysed discourse (based on column percentage)

Source: own elaboration.

Figure 7. Co-occurrence of codes of the categories: type of knowledge use; source of
knowledge (number of groups 6, Jaccard index)

Source: own elaboration.

The texts we examined contained many references to such values as securi-ty, as well as, less often, development (progress) and the environment. The first of these values appeared mostly in the context of nuclear energy and shale gas. Wind energy is not often connected to values-based discourse. Shale gas, on the other hand, was tied to statements coded as references to the common good.

The actors in the discourse used appropriate arguments and figurative speech to support all of these elements. The most common device was allu-sion to a vision of the future, while metaphors and symbols appeared less often, and generally within the nuclear energy discourse.

All these devices were accompanied by arguments dominated by the eco-nomic dimension. Economic discourse applied to all three areas of energy issues. Of course, other argumentative fields were also present – the technological, geopolitical and environmental ones, for instance, with environmental argu-ments usually functioning in the context of shale gas. Figure 8 illustrates the connections between the code categories that were distinguished. The presence and thickness of a line shows the number of mutual links occurring between the categories of variable values (codes) shown in the course of the cluster analysis.

As illustrated by Figure 8, the social media discourse most frequently re-fers to a set of values linked to security, the common good, development and progress. Security/safety is placed centrally, operating as a kind of anchor for arguments from various angles: geopolitical, environmental, economic or technological. This concept therefore acquires various contexts, and to an extent conceals other contents. It is interesting that values such as democracy or justice (which could occur, for instance, in the form of fair distribution of risk and benefits) remain outside of the network of main connections and function on the margins of discourses in the social media.
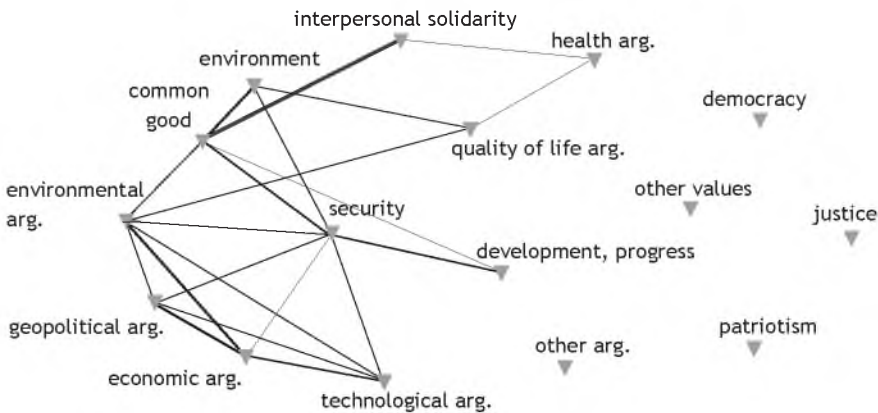

Figure 8. Co-occurrence of categories of codes: arguments, values (number of groups 1, Jaccard index)

Source: own elaboration.

Analysis of the collected material points to a high degree of exclusivity of the discourse. The texts not only overlooked or marginalised some groups of actors, but they also rarely employed mechanisms of inclusion for many interest groups. References or other elements supporting civic participation were relatively rare. There were in fact no descriptions of holding a dialogue of interest groups with citizens. More often, though, came criticism of this state of affairs.

The online/social media energy discourse

In the period in question, most statements of Polish internet users in the selected areas concerned wind energy or shale gas. There were considerably fewer comments on nuclear energy (see Table 5).

Ta b l e 5. Number of statements on selected energy issues

	Number of statements in research periods		
	Nuclear	Wind	Shale gas
For the period 1 April 2013–1 April 2014	53525	75994	75275

S o u r c e: own elaboration.

One of the main characteristics to describe the online social media discourse is where it functions (publication source). Analysis of the SentiOne data showed that nuclear energy was the area with the largest number of statements on Facebook. This subject was the topic of discussion in comments below articles on news sites slightly less frequently. Internet forums accounted for considerably fewer – slightly over one fifth – posts on nuclear energy on the Polish internet (see Figure 9). Shale gas demonstrates a similar structure of proportions of various types of social media services. In this area, however, forums, comments on news sites and Facebook posts each account for around a third of all published statements (Figure 11). The situation is different with wind energy (see Figure 10), in which almost half (46%) of statements come from internet forums. The popularity of this form of online debate can be explained by the prosumer approach to RES issues. The wind energy discourse also includes questions of the level of investments of individual households. The majority of statements are found on forums of enthusiasts and constructors of wind power stations. This is confirmed by an analysis of the most popular domains for this subject area. The top ten sites ("forums and portals" category) include such titles as Elektroda.pl, Forum.pcland.pl and the forum Wiatraki.memu.pl (*wiatraki* = turbines).
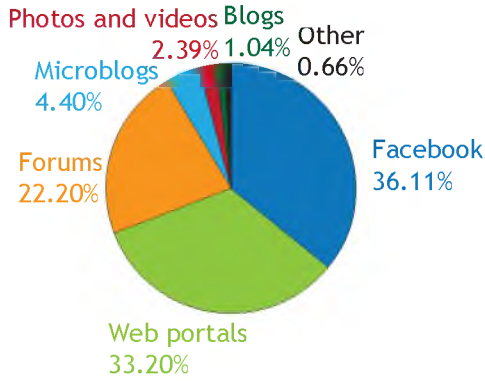
Figure 9. Representation of the subject "nuclear energy" in social media
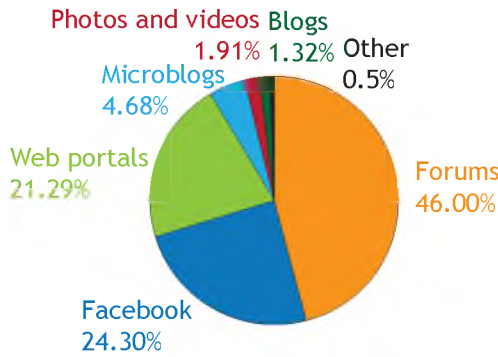Source: own elaboration based on Sentione data.

Figure 10. Representation of the subject "wind energy" in social media
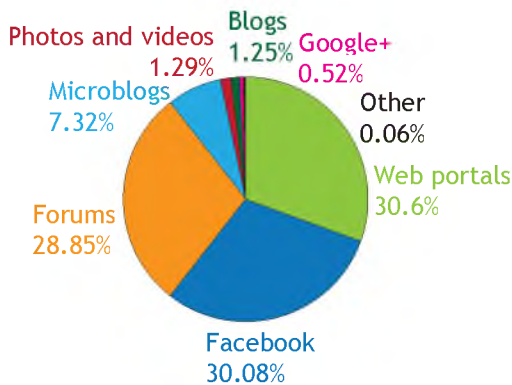Source: own elaboration based on Sentione data.

Figure 11. Representation of the subject "shale gas energy" in social media
Source: own elaboration based on Sentione data.

If we analyse the titles of the domains of the most active communities, we can notice certain significant difference between the various energy areas. In the case of nuclear energy, we can observe a large proportion of comments published on forums on industry websites (e.g. forum.wnp.pl), as well as those on news sites: finanse.wp.pl, forum.gazeta.pl, niezalezna.pl and wiadomosci.onet.pl. Notably, the list of the most popular domains among people commenting on shale gas is dominated by the forums of information/opinion websites with a right-wing profile: prawica.net, wpolityce.pl and niezalezna.pl.

As for wind energy, apart from the aforementioned popularity of technology forums, we can also note that these issues have a greater "locality." The list of the most popular domains with comments on wind turbines include addresses such as forum.dawnygdansk.pl ("old Gdańsk") and forum.echodnia.eu (a Świętokrzyskie Voivodeship local service). Perhaps unsurprisingly, given the reach in all three subject areas, most statements were recorded on facebook.com and twitter.com as well as the content aggregator wykop.pl.

Looking at the data on the social media discourse, let us note that this area of the media too is very much dominated by males. In all three subject areas they are in the clear majority, with an average of 82% of statements categorised as being made by men (see Figures 12, 13, 14).

The graphs in Figures 12–14 also contain information on the changes in frequency of appearance of posts in social media on energy issues. In the analysed period (April 2013–April 2014), we can observe that the graphs for both nuclear energy and shale gas contain very high growths in internet user activity. In the former case this increase took place in February 2014. We can assume that it was linked to the appearance of many texts concerning the government's adoption of the Polish Nuclear Energy Programme. Online activity regarding shale gas, on the other hand, made a jump following the publications of the results of experimental wells in Pomerania, in late December 2013 and early January 2014.

There are no clear dominants on the graph of internet activity on wind energy. We can perhaps attribute this to the lack of significant and "media-friendly" events in the course of the research, as the period in question does not cover the work on the adoption of the so-called prosumer law (February–March 2015).

These observations suggests that the social media discourse is very susceptible to the debate initiated by the mainstream media. Unfortunately, the research material does not prove whether this pattern also exists at the level of local debate.
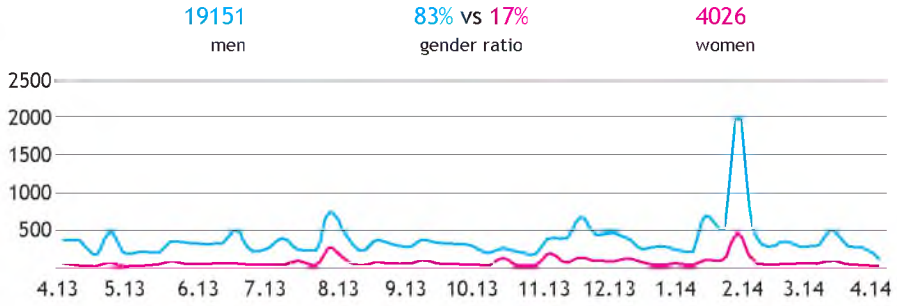
Figure 12. Gender in social media discourse – nuclear energy
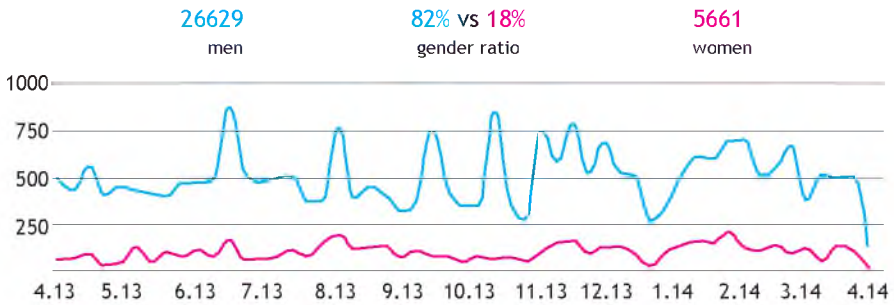Source: own elaboration based on Sentione data.

Figure 13. Gender in social media discourse – wind energy
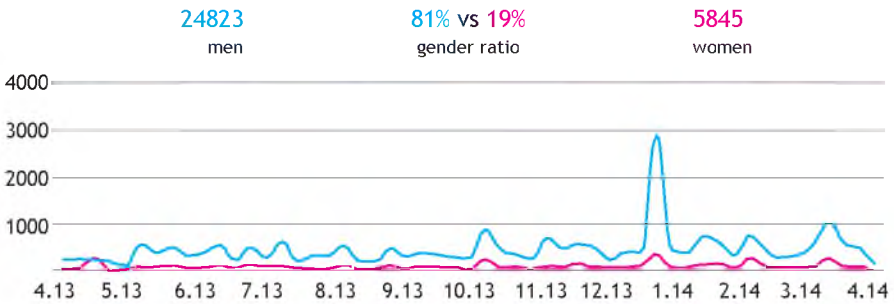Source: own elaboration based on Sentione data.

Figure 14. Gender in social media discourse – shale gas
Source: own elaboration based on Sentione data.

Conclusion

The description presented provides an approximate illustration of the energy discourse operating on the Polish internet. The most important characteristic is its exclusivity, which also applies to the press discourse (see M. Świąt-kiewicz-Mośny, "The Media Discourse on Wind Energy"). The exclusion of many actors (e.g. local communities, consumer representations) combined with the domination of certain categories of them (politics, business) means that it is impossible to speak of the representation or visibility of all social groups engaged in energy matters. Rather than constituting an alternative, including unrepresented interest groups in society, the social media discourse functions solely as an extension of the existing discursive order. As a medium serving the demassification of broadcasting, the internet does not break the model described by Michel Foucault of a reflexive relationship between power and knowledge (Foucault 1972). The above analysis is therefore not an illustration of a model in which the "long tail" of the internet is decisive in the extension and democratisation of discourse. As one science blogger notes, "contemporary society executes its power not only through access to information (knowledge) but also through processing it and reflexive sending of the 'social interpretation' of information" (Networked Digital 2012).

Taking this perspective would suggest that energy does not function in the network of dialogue and searching for agreement, but only in the game of particularisms. As a result, the loss of the sense of what the common good is, diagnosed among others by Zygmunt Bauman (2007), might risk become heightened still further. Yet it does seem that the "internet has produced a change in the structure of access to information – power centres continue to control key information that is inaccessible to others, but the knowledge contained in billions of pieces of data scattered around the internet (and unattractive to power) is today being interpreted and formed into a whole by the collective intelligence of millions of internet users" (Networked Digital, 2015). This is a subject that requires more extensive analysis.

In conclusion, we can make use of the conception of Christian Fuchs (2014), who points out that in order to understand the essence of the internet one should reduce it to the phenomenon of capitalism. Both function thanks to the opposing forces of cooperation and competition. According to Fuchs (2014), this antagonism is the reason not for the weakness, but for the potential of the web. However, when there is a lack of balance between the two the internet discourse will be a tool not of an electronic form of participation, but of an electronic form of domination.

Bibliography

Bauman, Z. (2007), *Consuming Life*, Cambridge.

Dijk, J. van (2006), *The Network Society: Social Aspects of New Media*, London.

Foucault, M. (1972), *The Archaeology of Knowledge: And the Discourse on Language*, trans. A. M. Sheridan-Smith, New York.

Fuchs, C. (2014), *Social Media. A Critical Introduction*, London.

Geiger, S. (2009), "Does Habermas Understand the Internet? The Algorithmic Construction of the Blogo/Public Sphere," *Journal of Communication, Culture, and Technology*, issue 10, vol. 1.

Giddens, A. (2006), *Sociology*, Cambridge.

Goban-Klas, T. (2004), *Media i komunikowanie masowe. Teorie i analizy prasy, radia, telewizji i Internetu*, Warszawa.

Habermas, J. (2008), "Communicative Action and the Detranscendentalized 'Use of Reason'" [in:] J. Habermas, *Between Naturalism and Religion, Philosophical Essays*, trans. C. Cronin, pp. 24–76.

Hauser, G. (1999), *Vernacular Voices. The Rhetoric of Publics and Public Spheres*, Columbia.

Lisowska-Magdziarz, M. (2001), *Analiza tekstu w dyskursie medialnym*, Kraków.

Luhmann, N. (1995), *Social Systems*, trans. J. Bednarz, Jr. with D. Baecker, Stanford, CA.

Morozov, E., "How Democracy Slipped through the Net," http://www.theguardian.com/technology/20911/jan/13/evgeny-morozov-the-net-delusion (access: 03.11.2005).

Networked Digital (2012), http://networkeddigital.com/2012/02/01/dyskurs_internetowy_vs_dyskurs_spoleczny/ (access: 03.11.2015)

Putnam, R. (2000), *Bowling Alone: The Collapse and Revival of American Community*, New York.

Smith, M. (1992), *Voices from the Well. The Logic of the Virtual Commons*, http://www.sscnet.ucla.edu/soc/csoc/papers/voices/Voices.htm (access: 03.11.2005).

Wellman, B. (2001), "Physical Place and Cyber Place. The Rise of Networked Individualism," *International Journal of Urban and Regional Research*, 25 (2), pp. 227–52, http://www.itu.dk/people/khhp/speciale/videnskabelige%20artikler /Wellman2001%20-%20%20personalized%20networking.pdf (access: 03.11.2005).