Astroturf Lobbying in the EU: The Case of Shale Gas Exploration

BRIEUC LITS, Université libre de Bruxelles

ABSTRACT

Interest groups have different options in their attempt to influence the decision-making process. One of them is to simulate citizen support for or against a public policy. This process has been coined astroturfing as it refers to the manufacturing of grassroots movements. Due to the concealed identity of the true sponsor of such movements, astroturfing represents a threat to democratic and pluralist values. In this paper, a comprehensive review of the literature on the phenomenon is presented before a method to detect such movements is suggested. This method relies on an emphasis framing analysis. The hypothesis is that astroturf groups use different frames than genuine grassroots movements in order to comply with the private interests they truly represent. The results of the case study on the shale gas exploration debate in the EU allowed to isolate an astroturf group as the frames they used is significantly different from genuine NGOs.

KEYWORDS

Astroturfing, Framing, Interest Groups, Lobbying, Shale Gas

Introduction

In recent years, an innovative lobbying strategy called astroturfing has penetrated the European public sphere. Astroturf lobbying consists of manufacturing a spontaneous support from citizens on an issue for political purposes. It can range from purchasing followers on Twitter to paying citizens to demonstrate in the street, or from signing a petition with false names to the setting-up of front groups and bogus NGOs. Whilst first traces of astroturf efforts can be found in the United States, this strategy is now emerging in Europe and is used by interest groups to lobby the European institutions or to sway public opinion.

Presenting itself as a grassroots movement, whilst in reality advocating for private interests, is problematic in democratic societies for various reasons. The first that comes to mind is the threat it represents to the democratic process. Indeed, in a pluralist system, the purpose of civil society organisations is to defend the interests of the citizens and to counterweight the influence of the corporate sector. The fact that citizens devote time and energy to a greater cause is one of the roots of their legitimacy. However, the financial and human resources of such organisations are often little compared to the resources of private companies and trade organisations. The fact that corporate interests simulate spontaneous citizens movement to
disseminate their messages is problematic as it challenges the voice of genuine grassroots movements. Those different voices are competing in the public sphere and the interests of real citizens movements might be obliterated by such practice. The first section of this paper offers a comprehensive review of the literature on astroturfing in order to define what the term really encompasses.

In attempting to look like a grassroots movement, private interests violate most of the normative theories of communication and political science, but also most codes of ethics of public relations and public affairs. The objective of this paper is thus to find a way to detect them. Despite the critics brought forward by several scholars regarding the use of the framing theory in social science, which are detailed in the second section of this paper, this concept offers an interesting lens to differentiate the astroturf from the grassroots movements. The hypothesis is based on an inherent dilemma for astroturfers. Astroturf groups represent private interests while appearing like a genuine grassroots movement. Will they use the frames from the interests they truly represent? Will they try to counter-frame the ones suggested by genuine grassroots movements? Or will they try to completely reframe the issue? The hypothesis developed in this paper is that by mapping the interest groups depending on their framing of the issue, it is possible to identify and isolate such groups.

The last section of this paper develops a case study on the debates that took place in Europe regarding the exploration of shale gas. In order to test the hypothesis that astroturf groups can be isolated from other grassroots movements based on their framing, the position papers of 34 interest groups were analysed with a quantitative text analysis method.

**What is astroturfing and what is not?**

It is only in 1986 that a US Senator from Texas, Lloyd Bentsen, coined the term astroturfing to describe a manufactured public relations campaign. His staff had received an unusually high number of letters from citizens who expressed their concerns about a new policy proposal aiming to regulate the liquor business. It appeared that these public letters actually originated from the liquor industry itself. The Senator tried to reassure its constituency by saying he was able to “tell the difference between grass roots and AstroTurf” (Walker 2014, 33). Bentsen thus cleverly qualified this fake grassroots movement as astroturfing in reference to the brand of synthetic grass AstroTurf. Originally, astroturfing refers to a communication campaign pretending to emanate spontaneously from concerned citizens while it is actually sponsored anonymously by corporate interests.

Even though such strategies are reminiscent of propaganda techniques and appeared long before the 60’s, it is worth noting that the existing literature on the subject is still at an early stage and is very scattered. Most research on the subject has been conducted in North America, the cradle of astroturfing, but is now emerging in Europe as well. The first scholarly work about the astroturf phenomenon started to really emerge in the 90’s under the impetus of John Stauber and Sheldon Rampton (1995) and Sharon Beder (1998). Even though they do not specifically use the term, they shed light on the damn lies that are
sometimes used by the public relations industry. Among them, the setting-up of front groups and the publication of scientific reports written by controversial expert groups are examples of imaginative strategies created to influence the outcome of public policies. From that time onwards, the fields from which scholars have conducted research on astroturfing were scattered, leading to some confusion about what the term really encompasses.

Early academic work putting an emphasis on astroturfing was led by Thomas Lyon and John Maxwell (2004) who strived to formalise the potential benefits that interest groups can reap from investing in astroturf efforts. Their economic modelling shows that astroturfing can theoretically be very attractive from a political but also from a business point of view. However, they did not take into account the potentially damaging effects on the reputation of a company getting caught in practicing such shady activities. Astroturfing is indeed a stealth tactic that implies to keep its true identity secret for as long as possible, which goes against the good practices in PR (Parsons 2008). The risk of being linked to such activities was later studied by James Mattingly (2006) who conducted a qualitative exploration of structures and processes of corporate political actions. He links the success of lobbying activities in shaping public policies with the necessity to have a good and lasting relationship with policymakers. Being accused of astroturfing would, therefore, complicate subsequent lobbying efforts for an organisation.

Interestingly, John McNutt and Katherine Boland (2007) suggested that environmental issues are more likely to be targeted by astroturfers. The research conducted by Charles Cho et al. (2011) supports this assumption. Based on a psychological experiment, their findings suggest that “astroturf organizations are effective in creating the sought uncertainty in the minds of people exposed to their message” (2011, 23). Along the same lines, the finding of a study conducted by Peter Bsumek and his colleagues (2014) demonstrated how the coal industry developed astroturf campaigns in the US in order to defend their interests. The findings show that the coal industry’s strategy is to propose a multi-front corporate advocacy campaign, which includes the use of front groups. The authors define this strategy as corporate ventriloquism and explain how the industry has adapted its rhetoric in order to challenge and undermine the voice from genuine grassroots movements.

The evolution of information and communication technologies is at the centre of McNutt’s work when he considered the implication of astroturfing for non-profit advocacy (2007) and the digital divide that it creates between advocacy organizations (2008). Indeed, the appropriation of the voice of civil society can also be done on the Internet and is often defined in the literature as sock puppetry. As Jerry Zhang and colleagues (2013) stress it, the internet appears to be a perfect platform for astroturf campaigns as it can easily provide a cloak of anonymity for its users. The idea behind sock puppetry is to create fake accounts, personas or bots in order to converse and to automatically relay the messages and ideas of their creators. Researchers from the field of computer science have strived to evaluate the influence of such campaigns and also to design tools to detect such murky activities (Ratkiewicz et al. 2011). Along those lines, it is worth mentioning the impetus of the Oxford Internet Institute who set up a research group focusing on the proliferation of fake news on
social media. For instance, they unearthed and explained the use of sock puppetry in the Brexit debates, where both sides created political bots to sway the public opinion on Twitter. Philip Howard and Bence Kollanyi showed that the “computational propaganda had a small but strategic role in the referendum conversations” (2016, 1).

Even though most research has been conducted in the United States so far, scholars from other countries also had a look at the phenomenon, possibly due to the growing number of detected cases in recent years. In Europe, Laurens (2015) has published a paper after following the setting-up of an astroturf group from the inside. He explained from a sociological perspective how the evolution of the European political structures and the need for the European institutions to regain trust from their citizens lead businesses to try and legitimate their actions through front groups to feed that need of institutional legitimacy.

As explained earlier, researchers from various fields have contributed to the current knowledge of astroturfing. However, it appears that the term itself is not always used to designate the same reality. Depending on the field of research or on the geographical and political context, different meanings coexist. It is in that context that Boulay (2012) strived to suggest a comprehensive definition in order to clarify and ease further research on the matter. She sees two conditions that must be fulfilled to characterize a communication process as astroturfing. Indeed, she defines it as “a communication strategy whose true source is hidden, and that pretends to emanate from a citizens’ initiative” (2012, 61). From that definition, astroturfing can take many different forms. It can describe the fact of buying fake followers on Twitter, posting positive comments under a false identity on TripAdvisor, paying citizens to demonstrate in the street, creating fake grassroots organizations with misleading names, and the list goes on. Building on this definition and applying it to political settings, astroturf lobbying thus refers to the simulation of citizen support for political purposes.

**Debates on the application of framing theory in social science**

As from the 70’s and onwards, the concept of framing has been widely used and defined by an ever-growing number of scholars from various research traditions. Two major schools of thoughts have emerged over the years: the sociology-rooted and the psychology-rooted traditions. Both perceive framing effects differently, both theoretically and empirically. In this section, the distinction between the two strands of research is made in order to explain the theoretical and empirical choices on how the research design for the case study has been built.

References to framing in the sociological tradition can be best tracked to Gregory Bateson and Erving Goffman. In his book Frame Analysis, An Essay on the Organization of Experience (1974), Goffman considers “framing as a means of understanding how people construct meanings and make sense of the everyday world” (Ferree et al. 2002). Goffman uses the word frames to label “schemata of interpretation that enable individuals to locate, perceive, identify and label occurrences within their time and world-space at large” (1974, 21). Applied to social groups, Goffman explains that the primary frameworks are the central
elements of their culture. Members of a same social group thus share same frameworks that they rely on to understand and respond to events. In sum, framing involves a social construction of a social phenomenon.

William Gamson and colleagues furthered research on framing with a constructionist approach and applied it to media discourse and public opinion, and how the former offers different interpretative packages to the latter for constructing meaning on an issue like nuclear power (Gamson & Modigliani 1989). What is especially relevant in their analyses is that, by deconstructing the old-fashioned way of measuring public opinion, that is with surveys containing pre-coded responses, they have demonstrated the “extent to which different media packages have become part of the public’s toolkit in making sense of the world of public affairs” (1989, 36). The authors carefully stress that changes in media discourses do not necessarily cause changes in public opinion, but that changes in discourse provide an essential context for interpreting issues and events.

It is along the same lines that Bernard Cohen claimed that “the press may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about” (1963), which is helpful in understanding the difference between agenda-setting and framing. Whilst the effects of agenda-setting increase the salience of a specific issue, different frames are competing and offer alternative interpretative packages of the issue at hand. In essence, agenda-setting research investigates an indirect media effect (what to think about) rather than a direct media effect (what to think) as framing research does.

Research on framing has grown exponentially following the piece written by Robert Entman in 1993. In this article, he tries to clarify what he qualified a fractured paradigm and strives to disambiguate the term and pave the way for operationalizing framing analyses in the field of social sciences. Building on Todd Gitlin’s work notably, he explains that framing “essentially involves selection and salience. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (1993, 52). As explained earlier, framing in the sociological tradition is based on salience. Further on, Entman defines salience as “making a piece of information more noticeable, meaningful, or memorable to audiences” (1993, 53). Building on Entman’s work, research deriving from this salience-based definition is thus qualified as emphasis framing.

Subsequently, scholars from psychology and behavioural economics conducted experiments on how individuals respond to pieces of information and how the manipulation of this information – or how the information is framed - could influence their choices and judgments. Since the experiments focused on the variation of presentation of logically equivalent information, we use the label equivalence framing to refer to this school of thought.
The seminal experiment on the topic was conducted by Amos Tversky and Daniel Kahneman in 1981. Participants who took part in the experiments were informed about the spread of a rare Asian disease that threatened to kill 600 people. Different sets of alternatives were suggested to the participants. Some were framed in terms of gains, others in terms of losses. Even though the propositions were logically equivalent in terms of lives saved or lost, Tversky and Kahneman demonstrated that people who were exposed to an option framed in terms of lives saved were more risk-averse but were conversely risk-seeking when the information was framed in terms of lives lost.

Results showed that human choices are influenced by the framing of the problem rather than the utility of the solution. In order to illustrate the difference with the sociology-rooted tradition, Michael Cacciatore and colleagues note that “psychology-rooted framing refers to variations in how a given piece of information is presented to audiences, rather than differences in what is being communicated” (2016, 10).

Put simply, on the one hand, the sociology-rooted tradition sees framing as a theoretical model closer to agenda-setting and priming because of its salience-based definition. There is a framing effect because the emphasis of certain aspects of an issue renders these bits of information more easily memorable and accessible to the audience in taking decisions. On the other hand, the psychology-rooted tradition argues that framing operates based on applicability, that is that the frames used to present a piece of information determine the schema called upon to process that information. This second school of thought advocates for changes in how communication scholars approach and conduct research on framing. First, they urge researchers to clearly differentiate emphasis from equivalent framing and not use the word framing as a catchall term to describe media effects. Second, they lobby for a return to a more rigid and narrow equivalency-based definition of framing.

**Research Design**

In this paper, this is an emphasis framing analysis that is conducted. As explained earlier, there is a dilemma for astroturfers in terms of frames selection. Recent research has shown that the frames used by interest groups can be explained by different factors: the logic of influence and the logic of membership (Schmitter & Streeck 1999, Klüver & Mahoney 2015). The former means that interest groups behave in accordance with the target of their lobbying campaign. The same frames will not work as efficiently when trying to influence the DG Trade of the European Commission or the Environment Committee of the European Parliament for instance. The latter requires the interest groups to mobilize frames in accordance with the members they represent. For example, corporate lobby groups would rely more on economic frames and citizen groups on public frames such as the environment or public health.

However, astroturf groups represent private interests whilst appearing like a genuine grassroots movement. The idea is thus to look at the frames that are emphasized by the astroturf movement and to compare them with the other interest groups. The emphasis
framing approach is thus more suitable for this kind of analysis. Indeed, as Heike Klüver and colleagues suggest, “framing plays an important role in public policy. Interest groups strategically highlight some aspects of a policy proposal while ignoring others in order to gain an advantage in the policy debate” (Klüver, Mahoney & Opper 2015, 481). The affiliation to Entman’s definition is patent as framing is based here on the selection of certain aspects of an issue in order to increase its salience.

Research analysing the frames of texts emitted by organizations from the political or media arenas has been conducted in a wide range of fields of research. In the field of interest group studies, the use of emphasis framing to measure interest groups positions has been replicated to different political contexts and different issues (Baumgartner & Mahoney 2008, Baumgartner 2009, Bernhagen et al. 2015, Borang et al. 2014, Klüver 2009, 2013, 2015). Recently, Heike Klüver and Christine Mahoney (2015) developed an innovative methodology for framing analysis based on quantitative text analysis. Whereas previous methods were usually based on manual hand-coding, the quantitative approach offers an automated method allowing to analyse large numbers of documents.

In this paper, the position papers of 34 interest groups (21 trade associations, 12 NGOs, and 1 astroturf group) were analysed with KH Coder, an open source software for quantitative text analysis. First, a cluster analysis was performed in order to see what words and sequences of words were the most used by interest groups. That led to the emergences of different frames. Second, a correspondence analysis was performed in order to map on a two-dimension scale the different interest groups based on the framing that they used. This mapping allows seeing the coalitions forming about an issue as well as the position of individual interest groups depending on their group type (trade association or NGO).

**Case study: Responsible Energy Citizens Coalition**

Shale gas refers to unconventional fossil fuel that can be found in various reservoirs across Europe. It is considered unconventional as the location of the reservoirs differs from where oil and gas are usually produced and because the techniques to extract the gas require unusual and complicated techniques. In most cases, the extraction of shale gas necessitates hydraulic fracturing, or more commonly called fracking, which consists in fracturing rock with a high-pressure mixture of water, sand, and chemicals that allows natural gas and petroleum to flow more freely.

The controversy surrounding the exploration of shale gas is mostly linked with the potentially damaging impact it can have on the environment such as air emissions, climate change, water contamination, high water consumption, risks of earthquakes and the list goes on. Even though the exploration of shale gas can represent a big potential for some EU countries, the environmental concerns lead the EU institutions to evaluate the risks and to possibly vote legislation regarding the exploration of this energy.
Though the European Commission has a near monopoly for initiating new pieces of legislation, the European Parliament decided to use its right of initiative to discuss and debate on the issue of shale gas. On Wednesday 21 November 2012, the Members of the European Parliament (MEPs) were asked to vote in a plenary session in Strasbourg on two different reports on shale gas. The first one aimed to evaluate the impact of shale gas and shale oil extraction activities. The second one aimed to explore the industrial and energy aspects of shale gas.

Lobbying campaigns targeting MEPs have taken place during the weeks and months preceding the vote. Interest groups from various sectors of the society took positions and informed the MEPs about the potential impacts that a new legislation on shale gas could have on their sectors. It is interesting to outline the remarks expressed by various MEPs during the vote and which are available on the website of the European Parliament. Many expressed their concerns about the intense lobbying from interest groups as well as the suspicion of citizen groups being guided by corporate interests. This issue is thus interesting to test the hypothesis as it is expected to find an astroturf movement amongst the interest groups.

For this study, 36 position papers from interest groups active in the debate have been analysed in order to identify the frames that were emphasised. Figure 1 shows the position of the interest groups studied depending on the words and clusters of words that they are using.

Figure 1 Position of the interest groups based on their framing
From this mapping, it appeared that two coalitions have emerged during the policy debates as visible in Figure 2.

The first coalition, on the right-hand side of Figure 2, comprises interest groups advocating for strict legislation and a ban on the exploration of shale gas. The nature of these groups is mainly non-governmental and non-profit, or cause groups, to use John Stewart's terms (1958). Following a logic of membership (Schmitter & Streeck 1999), it is not surprising that they mainly rely on public frames, that is the risks of hydraulic fracturing on the environment and on public health. This framing is evidenced by the use of words such as fracking, health, risk, water, or chemicals.

A deeper analysis of the position papers from interest groups from this coalition confirms this interpretation:

“Shale gas and other unconventional oil and gas pose a serious threat to the climate, the environment and local communities. The extraction of these fuels, like shale gas, leads to ground-water contamination, serious health impacts, and significantly higher carbon emissions than other fossil fuels.” (Friends of the Earth 2012)
“We, a coalition of environment and health NGOs, have great concerns about hydraulic fracturing (fracking) of shale gas [...] in Europe. In particular, because of its impacts in the following areas: climate, energy, water pollution, water use, air pollution, soil pollution, land use, noise, seismic activity, cumulative and combined health and environmental impacts on communities and workers in the unconventional gas industry.” (FFGH Coalition 2012)

On the left-hand side of Figure 2, sectional groups such as oil and gas companies are advocating against more regulation in order to stay competitive, to keep jobs in Europe, and to secure energy supply at an affordable price. The recent success of shale gas exploration for the US economy is often taken as an example. They rely mainly on what Semetko and Valkenburg (2000) identified as an economic consequences frame with the use of terms such as growth, jobs, economic, market, or power supply.

Here are some excerpts illustrating the economic framing:

“Europe holds significant shale gas potential. Even without development of the scale that has transformed the US economy, European shale gas could contribute a wide range of benefits including:
1. More jobs: as many as 1.1 million by 2050 – in addition to those created by other sectors. Greater energy independence, cutting imports to as little as 62% down from an otherwise predicted 89% of demand in 2035
2. More growth: adding as much as 3.8 trillion euros to the collective EU economy between 2020 and 2050
3. More Secure energy: shale gas could reduce the EU energy dependence by as low as 62% from an otherwise predicted 89% in 2035
That is why it is worth exploring for European shale gas.” (IOGP 2012)

“Eurogas members’ view that policy towards shale gas should be determined by what is best for our consumers’ welfare. As always, this means that economics and security of supply should be in the driving seat.” (Eurogas 2012)

Interestingly, Figure 3 shows the mapping of the interest groups depending on their type (trade association or NGOs). What is interesting to see is that the two coalitions bring together interest groups from a single type except for one exception: Responsible Energy Citizen Coalition (RECC). The name suggests indeed that it is a grassroots movement, however, their framing is highly similar to the one of trade associations.
A closer look at the communication material from that organisation shows that the most salient aspect of the shale gas issue that is emphasized is the reassurance of the use of the hydraulic fracturing technology. The use of a technical language, which is reminiscent of the framing used by trade associations, is a constant in the communication of this group:

“The experience and assumption from the already executed exploration works in Poland unambiguously prove that the unconditional observance of the provisions of the obligatory law along with technological regime practically eliminates any influence of executed works upon the natural environment”. (RECC 2012)

A letter sent to all MEPs the day before the vote to ask them not to vote in favour of the ban of shale gas also confirms that the most salient aspect of their argumentation is the safety of the technology, but RECC also mobilizes the same economic consequences frames as the energy companies do publicly, such as the preservation of jobs in Europe and the security of energy supply at an affordable price in Europe.

This letter was part of a broader lobbying strategy that was intense. Indeed, the day before the vote saw the setting-up of an event inside the premises of the European Parliament entitled How Shale Gas Will Transform Europe. The conference was sponsored by three conservative MEPs who gave the authorization to RECC to hold the event inside the Parliament, in the hallway in front of the plenary room. According to their website, this organisation presents...
itself as an association of “natural persons, representatives of self-governments and local authorities as well as social organizations”. Their objective was to convene different speakers in order to inform MEPs about the implications of shale gas exploration in Europe.

However, the organisation of this event raised many concerns amongst MEPs about the genuine organisers who were behind this communication campaign as the arguments presented were clearly in favour of shale gas exploration, which was unusual from an NGO in this debate so far. Indeed, the Responsible Energy Citizen Coalition was not registered in the European Transparency Register and, despite their status as a citizens group, they organized a conference with professional public relations tools such as flat screens, impressive sceneries, posters, and interactive games, and followed by a fancy cocktail reception.

The political party The Greens decided to investigate to see who was behind this so-called citizen coalition as the information on their website was vague about their funding. They found out that this movement was actually funded by PGNiG, KGHM, and LOTOS, three companies active in the exploration of shale gas in Poland and in Lithuania, two countries presenting high potential of natural gas resources. Given the anonymity with which the three companies created this campaign and the fact that it presented itself as a citizen movement, RECC presents the attributes of an astroturf group.

The framing analysis highlights the dilemma that astroturfers have to face. On the one hand, they defend private interests, and on the other, they aspire to appear as a grassroots movement. By conducting an emphasis framing analysis with a quantitative text analysis software, it was possible to map all interest groups depending on their framing and to isolate an astroturf group who clearly denoted from other genuine movements.

**Conclusion**

The objective of this paper was to see whether astroturf groups could be isolated and detected by comparing the frames they use to the ones from other interest groups. In the case of the shale gas debate, two coalitions emerged. The first one is opposed to the exploitation of shale gas by using hydraulic fracturing and mainly comprises environmental and health NGOs. They rely on public frames and emphasize the risks of fracking whilst at the same time ignore all the economic aspects of the issue. On the other hand, the coalition supporting the exploration of shale gas brings together trade associations and sectional groups. Their most salient argument is the economic benefits of hydraulic fracturing. The analysis shows that the astroturf group also used an economic consequences frame and used a technical language. The most salient aspect of the issue they decided to emphasise was to reassure about the safety of hydraulic fracturing. In that perspective, the aim of using an astroturf group was to reassure MEPs about the risks of hydraulic fracturing and to influence them on voting against a possible ban.
The existence of astroturf lobbying in political arenas presents a threat to a pluralist society such as the European Union. There are concerns regarding the distance between citizens and the EU institutions and astroturfing risk to even further this gap. As astroturfers rely on keeping their identity secrets, they operate discreetly in the public sphere. This discretion also complicates the work of scholars who have to cope with limited data and methods. The findings of this study show that conducting emphasis framing analyses could prove useful in detecting such groups, and therefore facilitate further research on the subject.
References
Baumgartner, F. R., Boef, S. L. D., & Boydstun, A. E. (2008). *The Decline of the Death Penalty and the Discovery of Innocence*. Cambridge University Press.

Beder, S. (1998). *Global Spin: The Corporate Assault on Environmentalism*. Chelsea Green Publishing Company.

Bernhagen, P., Dür, A., & Marshall, D. (2014). Measuring lobbying success spatially. *Interest Groups & Advocacy*, 3(2), 202–218. https://doi.org/10.1057/iga.2014.13

Boräng, F., & Naurin, D. (2015). ‘Try to see it my way!’ Frame congruence between lobbyists and European Commission officials. *Journal of European Public Policy*, 22(4), 499–515. https://doi.org/10.1080/13501763.2015.1008555

Boulay, S. (2012). Quelle(s) considération(s) pour l’éthique dans l’usage des technologies d’information et de communication en relations publiques? Analyse de cas d’astroturfing et réflexion critique. Revista Internacional de Relaciones Públicas, 2(4), 201–220.

Boulay, S. (2015). Usurpation de l’identité citoyenne dans l’espace public. Retrieved October 15, 2015.

Bsumek, P. K., Schneider, J., Schwarze, S., & Peeples, J. (2014). Corporate Ventriloquism: Corporate Advocacy, the Coal Industry, and the Appropriation of Voice. In J. Peeples & S. Depoe (Eds.), *Voice and Environmental Communication* (pp. 21–43). Palgrave Macmillan UK. https://doi.org/10.1057/9781137433749_2

Cacciatore, M. A., Scheufele, D. A., & Iyengar, S. (2016). The End of Framing as we Know it … and the Future of Media Effects. *Mass Communication and Society*, 19(1), 7–23. https://doi.org/10.1080/15205436.2015.1068811

Cho, C. H., Martens, M. L., Kim, H., & Rodrigue, M. (2011). Astroturfing Global Warming: It Isn’t Always Greener on the Other Side of the Fence. *Journal of Business Ethics*, 104(4), 571–587. https://doi.org/10.1007/s10551-011-0950-6

Coalition of environment and health NGOs. (2012). Position statement on shale gas, shale oil, coal bed methane and ‘fracking’. Retrieved from https://www.greenpeace.org/eu-unit/Global/eu-unit/reports-briefings/2012%20pubs/Pubs%202%20Apr-Jun/Joint%20statement%20on%20fracking.pdf

Cohen, B. C. (1963). *The press and foreign policy*. Princeton University Press.

Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4), 51–58. https://doi.org/10.1111/j.1460-2466.1993.tb01304.x

Eurogas. (2012). Unconventional/Shale gas: Policy Recommendations. Retrieved from https://eurogas.org/website/wp-content/uploads/2018/03/Position_Paper_Eurogas_Policy_recommendations_on_Unconventional_Gas_200212.pdf

Ferree, M. M. (2002). *Shaping Abortion Discourse: Democracy and the Public Sphere in Germany and the United States*. Cambridge University Press.

Gamson, & Modigliani. (1989). *Media Discourse and Public Opinion on Nuclear Power*. 

16
Gitlin, T. (1998). *Public sphere or public sphericules?*

Goffman, E. (1974). Frame analysis: An essay on the organization of experience (Vol. ix). Cambridge, MA, US: Harvard University Press.

Howard, P. N., & Kollanyi, B. (2016). Bots, #Strongerin, and #Brexit: Computational Propaganda During the UK-EU Referendum (SSRN Scholarly Paper No. ID 2798311). Rochester, NY: Social Science Research Network.

IOGP. (2012). Shale gas in Europe: Position Paper. Retrieved from https://www.iogp.org/blog/position-papers/gas-from-shale-position-papers/shale-gas-in-europe-position-paper/

Klotz, R. J. (2007). Internet Campaigning for Grassroots and Astroturf Support. *Social Science Computer Review, 25*(1), 3–12. https://doi.org/10.1177/0894439306289105

Klüver, H. (2015). The promises of quantitative text analysis in interest group research: A reply to Bunea and Ibenskas. *European Union Politics, 16*(3), 456–466. https://doi.org/10.1177/1465116515581669

Klüver, H., & Mahoney, C. (2015). Measuring interest group framing strategies in public policy debates. *Journal of Public Policy, 35*(2), 223–244. http://dx.doi.org.ezproxy.ulb.ac.be/10.1017/S0143814X14000294

Klüver, H., Mahoney, C., & Opper, M. (2015). Framing in context: how interest groups employ framing to lobby the European Commission. *Journal of European Public Policy, 22*(4), 481–498. https://doi.org/10.1080/13501763.2015.1008550

Laurens, S. (2015). Astroturfs et ONG de consommateurs téléguidées à Bruxelles. Quand le business se crée une légitimité « par en bas ». Critique internationale, N° 67(2), 83–99.

Lyon, T. P., & Maxwell, J. W. (2004). Astroturf: Interest Group Lobbying and Corporate Strategy. *Journal of Economics & Management Strategy, 13*(4), 561–597. https://doi.org/10.1111/j.1430-9134.2004.00023.x

Mattingly, J. E. (2006). Radar Screens, Astroturf, and Dirty Work: A Qualitative Exploration of Structure and Process in Corporate Political Action. *Business and Society Review, 111*(2), 193–221. https://doi.org/10.1111/j.1467-8594.2006.00268.x

McNutt, J. (2008). Advocacy organizations and the organizational digital divide. Currents: Scholarship in the Human Services, 7(2).

McNutt, J., & Boland, K. (2007). AstroTurf, Technology and the Future of Community Mobilization: Implications for Nonprofit Theory. *Journal of Sociology and Social Welfare, 34*, 165.

Parsons, P. (2008). *Ethics in Public Relations: A Guide to Best Practice*. Kogan Page Publishers.

Ratkiewicz, J., Conover, M., Meiss, M., Gonçalves, B., Patil, S., Flammini, A., & Menczer, F. (2011). Truthy: mapping the spread of astroturf in microblog streams. In Proceedings of the 20th international conference companion on World wide web (pp. 249–252). ACM.

Responsible Energy Citizen Coalition. (2012). Letters from the Citizen Coalition for Responsible Energy to the Members of the Parliament. Retrieved from https://cc-re.eu/en/documents-for-download/
Schmitter, P. C., & Streeck, W. (1999). The organization of business interests: studying the associative action of business in advanced industrial societies. MPIfG Discussion Paper, 1–95.

Semetko, H., & Valkenburg, P. (2000). Framing European politics: a content analysis of press and television news. *Journal of Communication*, 50(2), 93–109. [https://doi.org/10.1111/j.1460-2466.2000.tb02843.x](https://doi.org/10.1111/j.1460-2466.2000.tb02843.x)

Stauber, J., Rampton, S., & Dowie, M. (1995). *Toxic Sludge is Good For You: Lies, Damn Lies and the Public Relations Industry* (First Edition, Second Printing edition). Monroe, ME: Common Courage Press.

Stewart, J. D. (1958). *British Pressure Groups: Their role in relation to the House of Commons*. Oxford: The Clarendon Press.

Tversky, A., & Kahneman, D. (1985). ‘The Framing of Decisions and the Psychology of Choice’. In V. T. Covello, J. L. Mumpower, P. J. M. Stallen, & V. R. R. Uppuluri (Eds.), *Environmental Impact Assessment, Technology Assessment, and Risk Analysis* (pp. 107–129). Springer Berlin Heidelberg. [https://doi.org/10.1007/978-3-642-70634-9_6](https://doi.org/10.1007/978-3-642-70634-9_6)

Walker, P. E. T. (2014). *Grassroots for Hire: Public Affairs Consultants in American Democracy*. Cambridge University Press.

Zhang, J., Carpenter, D., & Ko, M. (2013). Online Astroturfing: A Theoretical Perspective. AMCIS 2013 Proceedings.

**Biography**

**Brieuc Lits** is a PhD student and a teaching assistant at the Department of Information and Communication Sciences - Université Libre de Bruxelles. He received his Bachelor’s and Master’s degrees in Information and Communication from the Université catholique de Louvain, and also holds a Master’s Degree in Management awarded by the Louvain School of Management, Belgium. His current research interests lie in political communication, interest representation, and astroturf lobbying.

**Email:** brielits@ulb.ac.be