Astroturfing and Public Relations: A New Perspective of Communication
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Abstract

Communication and public relations practitioners are sometimes criticized for their use of inauthentic strategies. Among them, astroturfingwhich consists ofsimulating public opinion while keeping one's identity secret. This issue raises ethical questions in democratic societies A scientific literature is developing on the subject.However, it appears that many definitions of the concept of astroturfing coexist, thus; complicating its study. This article proposes a comprehensive definition of astroturfing that overcomes some of the pitfalls identified in a systematic literature review. Based on this definition, a clear typology of astroturfing tactics is then established. Next, a contingency model is proposed to situate communication tactics on a continuum ranging from grassroots to astroturf. This model is,then ,illustrated by three case studies.

Keywords: Authenticity, contingency, disinformation, grass roots; astroturfing.

التسويق الماكر والعلاقات العامة منظور جديد للتواصل

ملخص

يتم في بعض الأحيان انتقاد ممارسي الاتصال والعلاقات العامة لاستخدامهم استراتيجيات غير صحيحة، يتمثل التسويق الماكر في محاكاة الرأي العام مع الحفاظ على سرية هوية الفرد. تثير هذه القضية أسئلة أخلاقية في المجتمعات الديمقراطية وتتطور المؤلفات العلمية حول هذا الموضوع.ومع ذلك، يبدو أن العديد من التعريفات لمفهوم التسويق الماكر تتعايش، مما يعقد دراستها. يقترح هذا المقال تعريفا شاملا للتسويق الماكر يتغلب على بعض التجاوزات المحددة في مراجعة الأدبيات المنهجية. بناء على هذا التعريف، يتم بعد ذلك إنشاء تصنيف واضح لتقنيات التسويق الماكر. بعد ذلك، يقترح نموذجا للطوارئ لوضع تقنيات الاتصال والعلاقات العامة. ثم يتم توضيح هذا النموذج من خلال ثلاث دراسات حالة.

الكلمات المفتاح: تسويق ماكر، اتصال، علاقات عامة، رأي عام.

Astroturfing et relations publiques une nouvelle perspective de la communication

Résumé

Les professionnels de la communication et des relations publiques sont parfois critiqués pour leur utilisation de stratégies inauthentiques. Parmi elles, l'astroturfing qui consiste à simuler l'opinion publique tout en gardant son identité secrète. Cette problématique soulève des questions éthiques dans les sociétés démocratiques et une littérature scientifique se développe sur ce sujet. Cependant, il apparaît que de nombreuses définitions du concept d'astroturf coexistent, compliquant ainsi son étude. Cet article propose une définition complète de l'astroturfing sur la base de cette définition, une typologie claire des tactiques d'astroturfing est ensuite établie. Ensuite, un modèle de contingence est proposé pour situer les tactiques de communication sur un continuum allant de la base à l'astroturf. Ce modèle est ensuite illustré par trois études de cas.

Mots-clés: Astroturfing, authenticité, contingence, désinformation, grassroots.

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1. INTRODUCTION

Conspiracy theory, disinformation, fake news... The last few years have been marked by an increasing public distrust of the communication professions, of politics and journalism. At issue, the vagueness surrounding the veracity of a message or the credibility of the one who states it. A contemporary challenge for the practice of Public Relations (PR), therefore; concerns the authenticity of communication. This article is more specifically interested in a non-authentic communication strategy and strongly maligned: astroturfing. This strategy consists in simulating a support in favour of citizens. Astroturfing can be used for political purposes, such as Philip Morris who created in 1993 the National Smoker's Alliance Group in order to opposing stricter legislation on tobacco use in the United States [1]. Even if this group presented itself as a grassroots movement, it was, in fact ,an initiative financed and managed by private interests. Astroturfing can also be used with a commercial aim, as in testify numerous cases of companies extolling the merits of their products in online by creating fake profiles and leaving fake reviews on sites like TripAdvisor or Amazon. Whether for political or commercial purposes, Astroturfing poses many ethical questions as if there is a usurpation of the citizen identity when making the communication not authentic. Even if the practice of Astroturfing is not recent and was even evoked by Shakespeare in Julius Caesar in 1599, the emergence of Internet and digital social networks facilitate this kind of strategy to the extent that the users can very easily keep their identity secret. The scientific literature on astroturfing begins to emerge, mainly in North America, but presents two pitfalls that this article aims to overcome. First, the term Astroturfing refers almost exclusively to the creation of advertising campaigns online disinformation and does not take into account the various forms that Astroturfing can take. Secondly, the current article systematically proceedsin a binary differentiation between citizen movements (or grassroots) andAstroturf movements. This conceptual article, therefore; has two objectives: first of all, it is a question of defining and conceptualizing Astroturfing in a more encompassing way in order not to reduce this concept to a digital tactic. Then, it is a question of going beyond this normative and dichotomous vision of Astroturfing in order to highlight the hybridity of many movements, in the sense that some citizen movements resort to Astroturfing, and in the opposite case, where Astroturf movementsare, then, joined by real citizens. In the first section of this article, a definition of Astroturfing is proposed and allows us to understand this phenomenon in a more global way so as not to reduce it to a single specific tactic. The essence of Astroturfing is simulation from a grassroots movement. It also implies an omission or a lie about the real identity of the designer of a message. According to this definition, it is possible to propose a typology of tactics that can be considered as Astroturfing: creation of fake NGOs, imitation of signatures on a petition, remuneration of actors to participate in an event, purchase of followers on the social networks, sending supposedly citizen letters to parliamentarians, or still writing fake comments online. In a second section, an approach to contingency is presented in order to propose a continuum ranging from "totally Astroturf" to "totally grassroots". This approach is inspired by the contingency model in PR, proposed by Cancel andal. (1997) in response to the model of excellence [2] considered too normative. This contingency model makes it possible to locate a PR action on a continuum going from a total accommodation terminal (in English pure accommodation) to a terminal total advocacy (or pure advocacy). Applied to Astroturfing, this type of model allows us to go beyond a binary approach as well as to show the hybridity of some movements that are neither totally Astroturf nor totally grassroots. This continuum is illustrated in a third section by three case studies representing the complexity of the targeted model: Total Astroturf (Citizen Coalition for Responsible Energy) ;Grassrooted Astroturf (Tea Party); Astroturfed Grassroots (Momentum).The answer proposed for the raised question within the article is to see how a theoretical model can be set up to evaluate communication strategies are not authentic. In this sense, this article is important in that it reframes the concept of Astroturfing which is for the moment used in too a singular way in the scientific literature. The proposed model makes it possible to better understand the

question of the authenticity of PR actions and allows a finer analysis of PR strategies non-ethical communication, as illustrated in the three case studies of this research.

1. Disambiguation of Astroturfing:

This first section aims at explaining the origin of the term Astroturfing, and the overall of the origin of its practice. as well A review of the literature is, then, proposed to contextualize the scope of the term and the different realities to which it can refer. A more encompassing definition of the concept Astroturfing is, then, suggested and makes it possible to draw up a typology of tactics. This typology ,thus; specifies the differences between the term Astroturfing and other communication tactics considered to be ethically questionable such as the misinformation or fake news.

1.1. Origins of Astroturfinge

Even though the term Astroturfing was first used only in the 1980s, non-authentic communication strategies have already been designed for centuries and have been considered as a powerful tool to advance a political programme. Such a process can even already be observed in Jules Caesar, when Caius Cassius mentions having written letters falsely representing the opinion of citizens to convince Brutus to betray Julius Caesar

I want this night to throw on his windows bills traced in different characters, as coming from various citizens and all expressing the high opinion that Rome has of him. I'm there will slip in a few obscure words about Caesar's ambition; and, after that, let Caesar stand firm, for we will overthrow her,or we will have worse days yet to pass [3].

This story is, of course, fictional, but it nevertheless shows that the idea of using Astroturf tactics for the purpose of deception was already present in England over the 16th century. Another more concrete historical case is the creation of an association of facade (front group in English) called African International Association at the end of the 1800s by Leopold II, King of Belgium in order to legitimize the colonization of the Congo and to facilitate its economic exploitation [4]. Another example is that of the torches of freedom, the name given to this contingent of American women starting to smoke cigarettes in public in 1929 [5]. We have later discovered that Edward Bernays and the president of the American Tobacco Company have orchestrated the entire march by paying these women for the sole purpose of boosting cigarette sales in the United States. It was only in 1986 that a US senator from Texas, Lloyd Bentsen invented the term Astroturfing to describe a fabricated PR campaign. His collaborators have received an unusually large number of letters from citizens who were expressing their concerns about a new bill to regulate the trade in spirits. It seems that these public letters , indeed, came from the alcohol industry itself. The senator tried to reassure his constituents by saying that he was able "to tell the difference between grassroots and the astroturf" [free translation] [6]. So Bentsen skillfullyqualified this false popular movement of Astroturf in reference to the brand of turf synthetic AstroTurf. Originally, Astroturfing is, therefore; understood as a fake grassroots movement and refers to a communication campaign that claims to emanate spontaneously from citizens when it is in fact created and disseminated anonymously by private interests. Tracing the first uses of the term to the 1980s can be explained by the political context of the United States. During this decade, the United States is experiencing an explosion in the number of citizen groups in the political arena. These groups have gained momentum and won symbolic victories on issues such as the Vietnam War or Civil Rights. These organizations have often started as spontaneous grassroots movements and have gained legitimacy in the political landscape. Their success has attracted the attention of industrial and private groups that would have liked to gain the same respect and the same legitimacy as these movementsof grassroots. As Berry (1993) explains, "Despite the significant resources financial lobbyists of the oil industry, none of them have as much credibility with the public that a lobbyist from the Resource Defense Council natural" [free translation].The raison d'être of Astroturfing lies in the fact that a company seeks other ways to get his messages across with more credibility, and in this case,by pretending to be a citizen movement. In this regard, "the creation of front groups allows companies to influence

political decision-makers by leaving very few traces" [free translation] [7]. Like this strategy aims to deceive political decision-makers and citizens, it raises concerns about the democratic aspect of the policy-making process [8]. These concerns are all pressing more the fact that Astroturfing has developed as a separate industry that the sociologist Walker (2014) called public support for hire (grassroots for hire in English) to describe the ease with which public affairs consultants manage to simulate popular support.

1.2. Literature Review:

Even if these strategies are reminiscent of propaganda techniques and have appeared long before the 1980s, it should be noted that the existing literature on the subject is still in its startingstage, and is only beginning to be systematized. Most of researches on the subject have been conducted in North America, the birthplace of Astroturfing, and they are now emerging in Europe as well. The first works scientists performed about the phenomenon of Astroturfingactually began to emerge in the 1990s under the impetus of Stauber and Rampton (1995) and Beder [8]. Even if they did not use the term explicitly, they shed light on the lies that are sometimes used by the PR industry. Among them, the establishment front groups and the publication of scientific reports written by groups controversial experts are examples of strategies created to influence public policies. Subsequently, Astroturfing becomes a mobilized research topic by researchers from sometimes very different backgrounds, without a consensusdefinition shared by the scientific community.The first academic works with an emphasis on Astroturfing were those of Lyon and Maxwell [9] who endeavored to model the potential benefits that interested groups can benefit from an investment in Astroturfing. Their economic modeling shows that Astroturfing can theoretically be very attractive from a political point of view. So it can be from a financial point of view. However, they did not take into account the potentially damaging effects that the revelation of such practices could have on the reputation of a company. Astroturfing is, indeed, a concealed tactic that involves keeping the true identity of its instigators secret for as long as possible, which goes against the good PR practices [10]. The risk of being linked to such activities has been studied by Mattingly [11] who conducted a qualitative exploration on how companies conduct their political actions. It establishes a link between the success of the lobbying activities of these companies and the need to have a good and sustainable relationship with political decision-makers. Being accused of Astroturfing would affect the credibility and would, therefore; complicate subsequent lobbying efforts for an organization. It is interesting to note that McNutt and Boland[12] suggest that the questions about environmental issues are particularly likely to be targeted by tactics astroturfing. The research carried out by Cho, Martens, Kim and Rodrigue [13] were directed in this sense. Based on an experiment in psychology, their conclusions suggest that "people who have visited astroturf sites have become more skeptical concerning the existence of global warming and the role of humans in this subject" [free translation]. In the same vein, the conclusions of a study conducted by Bsumek, Schneider, Schwarze, and Peeples [14] demonstrated how the coal industry has developed Astroturfing campaigns to United States in order to defend its interests. The authors define this strategy as that corporate ventriloquism (corporate ventriloquism) and explain how the industry has adapted its rhetoric in order to challenge and undermine the voice of the true grassroots movements. It is clear that the majority of research on Astroturfing has been conducted in the United States until the 2010s. Nevertheless, researchers from other countries have also looked into the phenomenon, perhaps due to the increasing number of cases detected in recent years. For example, Wear [15] analyzed the link between populism and Astroturfing during the deconstruction of "the convoy of no campaign confidence" that took place in Australia in 2011. The idea behind this campaign was to create a citizen movement, symbolized by a convoy of trucks, in order to oppose to the Australian governmental position on carbon emissions. The rally was actually organized by the National Road Freighters Association but presented itself as a real citizen movement. In Europe, Laurens [16] published an article after having followed from the inside the establishment of an Astroturf group. He explained, from a

sociological point of view, how the evolution of structures of European policies and the need for the European institutions to regain the confidence of their citizens leading companies to try to legitimize their actions through front groups to feed this need for legitimacy institutional. Further readings led to the election of the US Senate in 2004 and that Robert Klotz [17] called plagiarized participation (plagiarized participation in English). He formalized this concept according to which "participants are encouraged to presenting other people's words as their own to support a cause" [free translation]. The similarity with the definition of Astroturfing of Bentsen is striking, since an anonymous source manufactures support for his own private interests, but in this case through an Internet campaign. As Zhang, Carpenter, and Ko [18] pointed out, the Internet seems to be a perfect platform for Astroturfing campaigns because it allows its users to operate easily in anonymity. In particular, this theme has been at the center of the work of McNutt when he examined the implications of Astroturfing for the defense of interests of non-profit organizations [19]. The term generally used in the literature to refer to the creation of accounts under a false identity on digital social networks is sockpuppeting. Researchers in the field of ICT are working to assess the influence of these campaigns and to design tools to detect these obscure activities with more or less success [20]. Examples in the news (Cambridge Analytica) highlight the potential damaging role of large-scale orchestrated online Astroturfing campaigns have. With this in mind, it is worth mentioning that the impetus of the Oxford Internet Institute which has set up a research group focused on the proliferation of fake news on social media. For example, they uncovered and explained the use of sockpuppets in the Brexit debates, where both sides created bots to influence public opinion on Twitter. Howard and Kollanyi [21] showed that "the propaganda computer science has played a modest but strategic role in conversations about the referendum"

This digital use of Astroturfing currently dominates the literature on the subject to the point of sometimes implicitly considering this phenomenon as unfolding online, putting aside the offline Astroturf movements. Choo and Ashman [22] studied how to detect cases online Astroturfing. Kovic, Rauchfleisch, Sele and Caspar [23] ,thus; proposed a definition and a typology of digital Astroturfing. Keller, Schoch, Stier and Yang [24] were even more specifically interested in political Astroturfing on Twitter. Hobbs, Bosca, Schlosberg and Sun [25] proposed a very specific interest on Twitter as well, and finally, Zerback, Töpfl and Knöpfle [26] linked the question of online Astroturfing to that of misinformation. This digital problem of Astroturfing deserves further researches, in particular on the question of the polarization of online debates and its exploitation for populist purposes for example [27].

1.3. Definition and Pitfalls of the Term Astroturfing:

This review of the literature shows how the term Astroturfing is appropriate in a way by researchers working in various fields of research as well in different geographical and political contexts. This has as consequence that no definition of the concept has been imposed so far and that of many senses coexist. It is in this context that Boulay [28] has endeavored to propose an all-encompassing definition in order to clarify and facilitate research later on the issue. According to her, two conditions must be met for characterizing a communication process as a case of Astroturfing: it is of a "communication strategy whose real source is obscured, and which claims wrongly be of citizen origin".This definition is interesting in this sense that it makes it possible to take into consideration both cases of political Astroturfing and commercial, and both online and offline.An element that appears as a watermark in this definition but is not inscribed as is the notion of deception. In this article, the definition of Boulay [29] is embellished with a third element in order to better delimit what can be considered as Astroturfing. This will allow, in particular, excluding the case of accounts parodies on digital social networks, which necessarily conceal their identity and present themselves as certain citizens, but whose usurpation is obvious and day on the notion of humor, where Astroturfing tactics are deployed at strategic purposes to deliberately deceive citizens, consumers, media or politicians. In this perspective, Astroturfing will be defined here

as a deceptive communication strategy, the identity of the instigator is hidden and simulates an authentic expression of citizens. The defined term of Astroturfing is then possible to evoke its use as adjectival to describe phenomena bearing the features of Astroturfing. More specifically, it is useful to be interested in the concepts of Astroturf groups and Astroturf tactics. Astroturf groups are groups whose identity of sponsors and creators is concealed and who present themselves as groups defending the interest of certain citizens and who aim to deceive either public or political opinion or media. It must nevertheless be taken into account that this perception of Astroturf groups should not be dichotomous or binary, in the sense where certain groups of genuine citizens can use Astroturf tactics. Astroturf groups can be joined by real citizens. There second section of this article approaches this question in a more theoretical way. As far as Astroturf tactics are concerned, these are operations of communication in which the identity of the sponsor is hidden and who aims at giving to a citizen an image in order to deceive the targets of this operation. The term of tactics Astroturf must, therefore; be understood in a generic way and encompassing many more precise tactics that are listed in the next subsection.

1.4. Typology of Astroturf Tactics:

   Starting from the definitions of Astroturfing and Astroturf tactics proposed in this article, it is possible to list a typology of communication operations which can be considered as Astroturfing (Table 1). This typology is not exhaustive, sofar, as new communication practices regularly see the light of day. The aim here is to draw up a table of tactics that can be categorized as Astroturfing by linking them to their grassroots' original shape. In addition, references to research that have been conducted specifically on these tactics are systematically suggested in order to better illustrate the concepts.

Table 1. Typology of Astroturf tactics based on the literature review

grassroots Forme	astroturf Forme	Literature scientific
Non-governmental organizations	Facade groups	Beder (1998), Bsumek et al. (2014), Lits (2020a)
Letters sent to politicians or the media	Plagiarized participation	Klotz (2007)
Petition	Forged signatures	Walker (2016)
Survey	Multiple participation of one even voting	McNutt et Boland (2007)
Event	Remuneration of actors	Wear (2014)
Social networks, online comments, recommendation	Follower purchases, sockpuppetry, propaganda computational	Howard et Kollanyi (2016), Keller et al. (2019), Zhang et al. (2013)
Sites internet et blog	Sites astroturf	Cho et al. (2011)
Research and dissemination scientific information	Agnotology	Miller et Dinan (2015), Proctor et Schiebinger (2008), Oreskes et Conway (2011)
Crowdfunding	Self-financing	//

   These Astroturf tactics raise questions in terms of legality and ethics. See the panoply of varied tactics that can be categorized as Astroturfing only one definitive answer can be put

forward regarding these areas.Nevertheless, the scientific literature on the subject shows that there are currently breaches in regulations, whether in the United States or in Europe, in order not to mention only those, and that very often. Astroturf tactics are located in an area legality[30]. With regard to ethics on the other hand, the fact of lying about the identity of a sponsor of a message makes this non-authentic and non-transparent communication, which goes against the codes ethics of the communication and PR professions in the majority of democratic countries [31].

1.5. Fake News and Misinformation Astroturfing?

The typology of tactics presented above makes it possible to understand the ins and outs of an Astroturfing strategy. Based on concealment and deception, this concept is sometimes linked to other questionable ethical communication tactics. In particular, the terms of fake news, conspiracy of theories and misinformation are regularly associated with that of Astroturfing, rightly or wrongly[32]. Sometimes used interchangeably, it is,first of all, appropriate to delineate these themes relating to disorder informational, as Wardle and Derakhshan [33] call it. In a report sponsored by the Council of Europe, these two authors encourage in particular to avoid the use of the term fake news, considered inadequate to qualify the complexity of the question of information pollution. Furthermore, they also examine the circulation of information online and clearly define the difference between misinformation, misinformation and malinformation :

- Misinformation: when false information is shared, but without willingness to create a wrong.
- Misinformation: when false information is shared with a will to create a wrong.
- Malinformation: when real information is shared in order to create a wrong, such as the fact of making public information intended to remain private. [free translation]

These definitions offer more clarity on different phenomena online communication, but also make it possible to differentiate them from Astroturfing. Indeed, the determining criteria for qualifying a message or an Astroturf technique, it is the concealment of the identity of the author of the message and the promotion of a citizen origin. The question of authenticity, therefore; has to do with the sender of the message. In the case of misinformation tactics and misinformation, the question of authenticity lies at the level of the message itself, and less at the level of its author. So a politician could write a message of misinformation in his name, without being Astroturfing. Conversely, a group consists of falsely presenting the citizen origin and publishing an authentic message will be considered Astroturfing. Misinformation can, nevertheless; represent a tool for an Astroturfing campaign, in which the identity of the source of the message would be hidden and in which the message would not be authentic either.

2. The Question of Authenticity in the Light of a Theory of the Contingency of Astroturfing[34)

In addition to the desire to make a state of the art on Astroturfing research and to propose a typology of tactics, the objective of this article is to propose a theoretical reflection on the problems that Astroturfing can pose to a democratic society, in general, but also more precisely to the professionals of communication. It is with this in mind that a theoretical model, borrowed from a current research in public relations, is developed to better understand the Astroturfing phenomenon in order to bring collective societal solutions.

2.1. The Question of Authenticity in Communication:

After this conceptualization of Astroturfing, it becomes more obvious to understand the stakes and the dangers that this tactic represents for society and for communication and PR professionals.

From a societal point of view, Astroturfing represents a threat to be taken into account from both a political and a commercial point of view. Used for the following purposes, political Astroturfing campaigns deface democratic pluralism and come to compete with the voices of authentic citizen movements. From a commercial point of view, Astroturfing represents a way for companies to deceive the consumer and take advantage of unfair

competition. In a will to increase their power of persuasion, organizations could however lose any link of trust with its audiences [35].

It is in this order of ideas that different national associations and international organizations representing the PR profession have published different charters promulgating good practices. These documents for ethical purposes insist on different elements, including those of transparency and authenticity. Sometimes associated propaganda, persuasive communication or even manipulation, one of the challenges for the future of PR is to promote rules of good practice based on particular authenticity in communication. For Millette, "the "grammar" of the ethics of public relations are, thus; based on values such as transparency, trust, honesty, concern for the public interest and integrity"[36] Authenticity, therefore; becomes a key factor in the communication environment to which Astroturfing contravenes. By concealing the real identity of a message, the communication is no longer authentic or genuine. The spread of cases of Astroturfing could, thus; tarnish the reputation of communication professionals and PR. This reflection on the consequences of a lack of authenticity has, in particular, been discussed in the field of social movements. It appears that authenticity becomes a central element in the way movements are perceived and that, conversely, an authentic presentation of his group could have adverse repercussions [37].

2.2. Contingency Models in the Information and Cmmunication sciences:

The question of ethics in PR has already been explored by many researchers. Among the topics discussed, the question of the normativity of the role of PR is highlighted. In indeed, an eminent model in the theories of PR is that of the theory of excellence [38]. Through it, Grunig and Hunt [39] propose a model making it possible to classify each communication operation according to four categories. These variables include, in particular, the fact that the campaign of communication is either unidirectional or bidirectional and that it is symmetrical or asymmetrical in relation to its audiences. The objective of this model is to propose a framework of good practices with a normative vision towards which the PR operations should tend: a bidirectional symmetrical model, within which an organization and its audiences collectively participate in maintaining an excellent relationship based on listening and transparency. This ideal vision of public relations has, nevertheless; been criticized and other more descriptive models have been suggested, including the contingent theory of accommodation. Proposed as an alternative to the theory of excellence, [40] are interested in the different contingency factors that have an influence on the relationships that an organization has with its audiences. The hypothesis of basis is that the Grunig model has a normativity that does not make it possible to render account of the reality of practices in PR while the theory of the excellent proposes four fixed models: The contingency theory is based on a continuum ranging from pure advocacy, that is to say, a posture where the interests of the organization take totally precedence as far as manipulation and pure accommodation are concerned. In other words, a posture takes into account the opinions and needs of its audiences as a priority. Based on the analysis of 87 variables, the contingency theory intends to propose concretely factors allowing organizations to tend towards a posture more accommodating to its audiences.

2.3. A Continuum between Grassroots and Astroturf Movements:

With the perspective of studying Astroturfing as a complex phenomenon, it appears in the scientific literature and in press articles that there is a dichotomous, almost Manichean vision of Astroturfing. On the one hand, there will be the authentic grassroots citizen movements, and on the other, there will be groups of Astroturfs. Through the analysis of different cases[41], it should be more careful in this approach to propose theoretical models allowing a finer analysis of these phenomena.Taking as an example the approach of Cancel et al[42], this article proposes to develop a model of the contingency of Astroturfing ranging from a terminal grassroots at an Astroturf terminal (Figure 1). The objective of this model is to allow understanding non-authentic communication campaigns in a more subtle way, by analyzing different factors that are listed in the following subsection, and by going beyond a normative

vision of these phenomena. Indeed, as illustrated in the study cases described in this article, many operations of communication have a hybrid status insofar as they are not totally grassroots and not totally Astroturf. This is, for example, the case of a citizen movement struggling to mobilize new members and deciding to buy followers on his social networks to seem more important, or in the opposite case it may be a fake NGO funded by industrialists that is supported and joined by real citizens sharing its values. In both cases, these communication campaigns have grassroots and Astroturf traits ,including a dichotomous vision would not allow a descriptive analysis in depth

Figure 1. Model of the contingency between grassroots and Astroturf

Grassroots   Astroturf

2.4. Contingency Factors:

In order to study the authentic or artificial character of an organization or a communication campaign, a list of contingency factors to take into account is suggested to assess where an organization stands on the continuum grassroots-Astroturf (Table 2). These factors have been identified through the study of systematic review of Astroturfing cases presented and described in the literature review proposed at the beginning of the article. It is not necessary to understand this list of factors as a set of variables. All of which must be systematically applied to the study from a case of Astroturfing. Rather, it is a list within which different variables make it possible to describe and understand the authenticity, or rather the non-authenticity of an organization. This list is not intended to be exhaustive, but aims to launch a theoretical reflection on the question of the authenticity of the professions of the communication and PR and on the ways in which it is possible to detect such practice.

Table 2. Contingency Factors of an Astroturf Strategy

Visibility of the sponsor of the message
Presentation of the citizen origin
Mention of the source of financing
Mention of the members represented
Speed of growth of an online community
Percentage of artificial accounts in an online community
Identification of conflicts of interest
Disclosure of remuneration in exchange for physical representation
Responsiveness to public requests
Registration in a transparency register
Number of supporters
Description of the role of employees or volunteers
Previous experiences not authentic

The thirteen factors listed here serve as a basis for evaluating the Astroturf character of an organization. As explained above, some factors are sometimes not applicable and are specific to the study of specific communication strategies (digital communication, lobbying...). Others

are more difficult to evaluate, like the speed of growth of an online community that could mean the massive purchase of new followers. It is useful to clarify that some of these variables can be analyzed in a binary way (Yes/ No), while others require a more quantitative or more abstract approach. The goal of the continuum is not to qualify certain communication actions in a numerical way, but rather to offer an analysis model allowing to a better understanding about the hybridity of some organizations. In addition, these variables make it possible to open up avenues of detection of Astroturf strategies. This question of detection will be discussed in the conclusion of this article.

3. Case studies:

In order to illustrate the grassroots-Astroturf continuum and the usefulness of factors of contingency, this section proposes three case studies to highlight putting the model into practice. The first case presents an example of a total Astroturfing, the second case describes how a grassroots movement used Astroturf tactics and the third case illustrates the opposite fact, that is to say a Astroturf movement joined by citizens. The terms used to describe phenomena are in English to the extent that the majority of the scientific literature uses, whether the publications are in English or French. Attempts in French translations exist, such as the term similitantism, but represents rather an exception. In addition, the English language is preserved in order to preserve the relationship that exists between Astroturf and grassroots, whose finesse of terms will be lost in translation.

3.1. Total Stroturfing

In the case of total Astroturfing, at the right terminal of the continuum (Figure 1), it is a fully funded and conducted by public opinion, simulation by private and concealed interests and which by no means seeks to be joined by real citizens. The use of this practice often takes place when an organization has a specific objective, be it political or commercial, and uses a one-time tactics. To take an example, in 2012, the European Parliament voted on two reports aimed at regulating shale gas exploration in the European Union. The day before the vote, an event took place within the Parliament itself entitled "How shale gas will transform Europe". This conference was organized by the Citizen Coalition for Responsible Energy (CCER). Site Internet, letters sent to MEPs, touch screens, posters, speakers, or videos were as many means of communication implemented to explain how European citizens were in favor of hydraulic fracturing, technology, yet, controversial for its environmental impacts. After the investigation[43] there was an emergence of active companies in the exploration of gas and oil. Both Poland and Lithuania were behind this campaign. The entire communication campaign was quickly deployed days before the vote in order to put pressure on the MEPs before disappearing a few days later; this is evidenced by the website that disappeared very quickly.

The analysis of this campaign, in the light of the contingency factors, shows that this campaign is purely Astroturf. The CCER Group does not present its financing, its members, or its employees. The group is not registered in the register of European transparency while presenting itself as a citizen movement. In this case, it is, therefore; an Astroturf strategy insofar as private interests and they mobilized different Astroturf tactics aimed at simulating the expression a citizen's voice with the specific interest of influencing the European legislative process. By its ephemeral nature, it seems that companies have wanted to influence MEPs in a precise way before erasing their trace once the vote is over ended.

3.2. Grass rooted Astroturf:

The second example aims at showing how a movement can be created and financed by private interests and claiming to come from a citizen's background, and then be joined by real citizens. An emblematic case concerns the Tea Party in United States[44]. Meaning Taxed Enough Already, this movement born in 2009 had as its initial objective to express the opposition of its members regarding the tax policy in the United States. The history and evolution of the Tea Party is complex and deserve special attention. More specifically, many researchers, journalists and politicians express their skepticism regarding the financing of this movement and the development of its political agenda[45]. Numerous investigative works,

thus; show the importance and the prevalence of interests in the launch of the Tea Party and in its expansion through the United States[46]. In particular, the role of the Koch brothers is usually highlighted in the financing of the Tea Party through front organizations such as the American Prosperity Association. Supported by major financial efforts from the corporate world, the Tea Party is showing up, nevertheless; as an authentic grassroots movement, and is supported by many citizens, mostly Republicans, who believe in the project of the movement.

This illustrates well the hybridity that can exist for social movements which are present as coming from the grassroots, but which are potentially funded and directed by a certain elite and using different financial schemes to hide their direct links with the movement. Such a movement, therefore; would not be totally grassroots because of its links with private interests, but not totally Astroturf considering the real support from citizens.

Taking into account different contingency factors, such as the source of financing which is not transparent, the tendency would be to first place the Tea Party at the Astroturf terminal. Nevertheless, the hybridity of the group shines through the movement being joined by real citizens, and would distance itself from the Astroturf and a group as CCER as analyzed previously.

3.3. Astroturfed Grassroots:

By Astroturfed grassroots, it is understood that an authentic citizen movement has resorted to one or more Astroturf tactics. The case illustrated here will be of Momentum. This is a grassroots movement that appeared in the UK in 2015 following Jeremy Corbyn's victory for the presidency of the Labour Party [47]**.** This spontaneous movement was born by the efforts of citizens willing to put up with the politician and gradually spread into England. This movement was, then, structured and brought closer to the political party and, since 2017, every member of Momentum must be a member of the Labour Party. In 2019, Momentum, thus, had nearly 40,000 members. Nevertheless, during the first movement, it appeared that the movement wanted to seem more important than it was at that time and would have created many accounts on Twitter in order to follow Momentum and relay his account. This strategy of creating sockpuppets on Twitter can be equated to Astroturfing insofar as there has a desire to simulate the voice of citizens. In this sense, the contingency factor aimed at assessing the proportion of artificial accounts becomes important. This example illustrates the need to design Astroturfing on a continuum. In general, Momentum is perceived and described as a grassroots movement coming from base. They, nevertheless; used an Astroturf tactic in order to inflate their numbers on social networks. Even if it is a questionable ethical tactic, it seems minimal compared to the previous case of the Citizens' Coalition for a Responsible Energy. Where a dichotomous model would place CCER and Momentum in an "Astroturfing" category, the contingency model allows an analysis finer and would, thus; place CCER at the "total Astroturfing" and near Momentum limit from the "grassroots" terminal but with a certain distance taking into consideration the sockpuppets tactics.

3.4. Testing the Model of the Contingency of Astroturfing:

These three examples are interesting to highlight the diversity of Astroturf strategies and the necessary precaution to be taken before categorizing movements like totally Astroturf. These examples show only three shades from the grassroots-Astroturf continuum. In the light of the contingency factors explained previously, many variations of Astroturfing can be born. On future research, in this regard, would be relevant in order to test the model of the contingency of Astroturfing in more details by systematically coding many examples of non-authentic communication strategies in the light of factors contingencies.

Conclusion:

The question of the authenticity of the acts of communication and the operations of public relations has become unavoidable in recent years. In an era which some call post-truth, has become essential for researchers in social sciences to be interested in the use of the non-authenticity by PR and communication professionals. Misinformation, fake news, spin, greenwashing are all words that are sometimes used to describe these kinds of practices with

questionable ethics. The use of such practices represents an important issue on the perception of communication professions and PRS. While the codes of ethics and ethics promote good practices based on transparency and authenticity, Astroturfing strategies come to damage the reputation of an entire profession. Better understanding the functioning of these non-authentic tactics is essential to detect them in the future and to improve relations between communication professionals and their audiences.

With a desire to lay the foundations for a finer analysis of this kind of tactics and in order to avoid an amalgam between these different concepts, this article proposes to conceptualize and define the notion of Astroturfing. The proposed definition is encompassing and makes it possible to better understand this strategy aimed at stimulating an opinion citizen. This definition also makes it possible to overcome the pitfalls observed in recent scientific literature [48]. First of all, Astroturfing is not used exclusively for political purposes. The majority of publications are interested ineffect to a political or even lobbying use. This can be explained by the origin of the term grassroots which would have been born in the United States to precisely describe grassroots movements against policies in place. Nevertheless, Astroturfing is also a tactic used for commercial purposes that deserves more attention, particularly, in the field of marketing. Then, even if special attention is dedicated to Astroturfing cases online and on digital social networks, this is a practice that has its roots in offline events :remuneration of actors at demonstrations or creation of fake NGOs. Finally, Astroturfing should be understood as a generalist concept encompassing a large number of practices. Astroturfing can, therefore; take on a thousand faces that is about defining in depth. The typology of tactics proposed in this article goes into in this sense.

Secondly, a theoretical approach to contingency is advanced to better understand the Astroturfing case study. Regularly considered in a binary, Astroturfing is a complex and often hybrid phenomenon in the sense that some organizations share both grassroots and Astroturf attributes. Acontinuum ranging from "totally grassroots" to "totally Astroturf", thus; allows a refinement of analysis of organizations or strategies sometimes judged in a Manichean as an Astroturf. This approach to contingency is justified and illustrated by three case studies. These highlight three nuances of the model which are, of course, more numerous and that the additional case studycould come to complete. These case studies are analyzed in particular in the light of contingency factors. These variables, in addition to allowing a finer analysis of Astroturf tactics, launch also the basics to propose solutions to detect such movements in the future. This is illustrated, in particular, by various initiatives focusing on certain factors in a more precise way, and thus; advocating a critical education to the communication. For example, regarding the issue of the opacity of sources of financing and conflicts of interest, the organization Center for Responsive Politics feeds the website http://opensecrets.org / that specializes in tracing money in politics in the United States. This question of transparency also raises question in Europe where many improvements could see the light, such as the obligation for any interest group aimed at influencing public policy to register in the European transparency register, which is currently based on voluntary. Other initiatives are aimed, more particularly, at online Astroturfing, with as an example the Twitter account The Troll Zoo, which reveals to the public of many accounts created from scratch to influence online debates.In addition to these civil society initiatives, different researchers are trying to develop methods for detecting Astroturf movements, but collide regularly to methodological or logistical constraints. The analysis of movements whose specificity is to be hidden and misleading remains complicated and it is with this in mind that this conceptual contribution aims to highlight this non-authentic and unethical communication strategy. The theoretical difficulties and methodological methods for analyzing such occult communication phenomena are large [49]. By a disambiguation of the term Astroturfing and by the establishment of a typology of Astroturf tactics, the objective of this article is to mark out the future necessary research on Astroturfing. Among the future tracks research, it would, thus; be interesting to

deepen the knowledge on the use of Astroturfing for marketing purposes or to develop techniques for detecting and evaluating the effects of Astroturfing campaigns

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