

# Public dialogue, scientific institutions and democracy: reflections on the establishment of a policy of organizational communication

DOI: 10.1590/1809-58442016211

**Rennan Lanna Martins Mafra**

(Universidade Federal de Viçosa, Centro de Ciências Humanas, Letras e Artes, Departamento de Comunicação Social. Viçosa – MG, Brasil)

## Abstract

This paper recognizes the public dialogue as a democratic imperative addressed to the scientific contexts of the recent complex and pluralistic societies, and aims to analyze how is it possible to build an organizational communication policy guided by the notion of public communication of science in contemporary settings of the scientific institutions. The methodology used in the article was the bibliographic research, which guided the search for studies on public communication of science, the search about organizational Communication studies in democratic contexts and a survey of the general theoretical foundations that support the explanatory horizon now proposed. As a main result, it is evident that the field of Organizational Communication can provide answers to scientific institutions from the construction of a Communication policy that encourages, accept and administer the public dialogue, in line with efforts focused on public communication of science.

**Keywords:** Dialogue. Science. Communication. Organizations. Democracy.

## Introduction

This article reflects on the establishment of an organizational communication policy for the setting of scientific institutions, due to the contexts of complex and pluralistic democratic societies. In these contexts, such institutions – as well as all kinds of organizations – are inevitably called to develop public dialogue (BOHMAN, 2009, MARQUES; MAFRA, 2013), specially in the midst of an endless number of plural social groups that require organizational communication to be not only a possibility, but primarily a right. In scientific organizations, one aspect becomes even more interesting: the previously unshakeable bases of modern science legitimacy undergo a deep crisis, so that science itself has undergone turbulences, its assumptions are being reviewed (SANTOS, 2003) and there is openness to a dialogue with numerous non-scientific social contexts (DELFANTI, 2010). Thus, more

specifically, there are two main issues posed as challenges to this work: 1) since Organizational Communication can offer valid paths for an understanding of the contemporary dilemmas of science crisis – dilemmas that affect the performance of scientific institutions; 2) to what extent such paths can inspire the creation of an organizational communication policy for scientific institutions in complex democratic and pluralistic scenarios.

There seems to be a considerable gap to be explored regarding the relationship between public communication of science and the organizational communication of scientific institutions. Some people think that efforts for public relations and organizational communication present in scientific institutions would supposedly undermine scientific divulgation efforts – since the former would be focused only on the construction of public image, without using the dialogic mechanisms for socially motivated purposes (PITRELLI, 2008). This work aims to review this reasoning and demonstrate that, on one hand, organizational communication of scientific institutions can seek verticalized and solely informational models, but on the other hand, such communication can also be guided by the search for dialogic and public-reflective processes (BOHMAN, 2009), thus becoming a key tool for scientific organizations in times of crisis.

Therefore, the work is organized into three sections. In the first, there is a discussion on modern science in crisis, scientific institutions and communication, in order to highlight the need for reflection on organizational communication as a fundamental practice for scientific institutions themselves. Then, we will seek to understand public dialogue as a kind of democratic imperative, especially in scientific contexts in crisis, affected by the normative ideal of democracy. Finally, we will seek to find public dialogue as a kind of practical imperative, aiming to promote organizational communication that can develop a strategic perception about reality, and give answers and public justifications for this very reality in motion.

## **Modern science in crisis, scientific institutions and communication**

Surely, the issue of *modern science in crisis* has been fundamental in the organization of numerous conceptual and analytical concerns that permeate most scientific fields of knowledge (SANTOS, 1989, FOUCAULT, 1999). Apparently, this is not just another paradigmatic crisis (KUHN, 1998) within numerous disciplines, but also a socially motivated and distributed crisis (SANTOS, 2003) related to the social role of science in the construction and reproduction of modernity itself (LYOTARD, 1988). In this sense, we can assume that there are many dimensions / gradations of a vast conflict, whose proportions and extensions are far from being grasped. In this regard, this work aims to explore the aspects that allow us to better recognize two closely correlated possible *dimensions/gradations* of such conflict: 1) the science crisis is manifested by the existence of an institutional crisis

within scientific organizations, especially in democratic contexts; 2) since the crisis of science promotes an institutional crisis in the scientific organizations, it strongly demands *new modes of communication and interaction* from such organizations in the complex and pluralistic contemporary societies.

Regarding the first dimension/gradation, some studies have focused on questioning the relational, organizational and political aspects present in the very context of scientific institutions. Delfanti (2010) and other authors point out the creation of a movement called Open Science, which advocates the public role in any scientifically motivated knowledge and denounces both the scientific detachment of subjects outside the realm of science as well as the existence of a kind of commercial interests promoted by contemporary mechanisms of publication. Such process would eventually and ultimately support international periodization by actual enterprises, thus contributing to a kind of illusion about the advancement of knowledge (which can be measured by a commercial value not always critically validated), also corroborating the increasing gap between scientists and society. Thus, the researcher highlights that it is still unknown if the emerging movement Open Science:

will succeed in providing crucial scientific innovation. But there is at least one thing those actors are providing: a new, broader meaning of ‘open science’, which is not only the free circulation and sharing of information within the scientific community [...] Their radical claims for openness and access to scientific knowledge is heating up a debate on the boundaries of contemporary science: on one side, citizens participation in its decisional processes; on the other, in the scientific enterprise itself (DELFANTI, 2010, p.2).

Delfanti (2010) findings corroborate the expression of the second dimension/gradation of science crisis explored in this work: the efforts towards the openness of scientific institutions demand new modes of communication between science and society, as an immediate result. In this regard, an already existing field of studies, consisting of the idea of public communication of science (OLIVEIRA, 2004; CASTELFRANCHI, 2004) and/or the notion of scientific dissemination (ZAMBONI, 2001; DUARTE; BARROS, 2003; RAMALHO E SILVA, 2011; EPSTEIN, 2012), has obtained increased attention exactly because it questions the improvement of the relationship between science and democratic social contexts. Thus, this field recognizes communication as fundamental for science in times of crisis (and non-crisis), with its efforts to reflect on public communication of science models (TARGINO, 2000; CASTELFRANCHI, 2004) that can address both the improvement of a sort of “translation” of scientific production for society (mainly in scientific Journalism), and the contemporary desire for the participation of social subjects who do not belong to the scientific community in decisions related to scientific choices and interaction directly with scientists (KOUPEL, 2010). In this regard, it must be pointed out

that the social subjects who have no access to scientific contexts, previously called “lay public” (EPSTEIN; BERTOL, 2005; EPSTEIN, 2012), have increasingly been named, not by chance, as “citizens” (RIESCH et. al., 2013). These terms demonstrate that the vibrant and fruitful movement that rethinks the role of communication in the daily activities of scientific institutions is ultimately related to the complex social phenomenon that challenges the very modern scientific *ethos*.

However, while there seems to be no changes in some fields of knowledge regarding the contemporary demands for improved public communication of science, the opposite is observed in Organizational Communication. There is no doubt that many researchers are concerned with the promotion of discussions on communication within the contemporary interaction environments of scientific institutions: recently, Epstein (2012) launched challenges aiming at the construction of a theory of scientific divulgation within scientific institutions. Pessoni (2012) has discussed concepts and empirical instances linked to public communication of science and organizational communication, mainly focusing on public health. On the other hand, Scroferneker (2010) published relevant research on organizational communication within the university environment, focusing on virtual ombudsmen.

Despite the undeniable relevance of such studies, insignificant confrontation is observed between possibilities, problems and tensions arising from the interface between Organizational Communication and studies on public communication of science. Perhaps, due to the absence of such confrontation, Pitrelli (2008, p.2) demonstrates general suspicion about the presence of organizational communication in scientific institutions:

It is not easy to be a communicator able to facilitate a dialogue between science and society, able to be autonomous and impartial when reporting and analysing controversies between researchers and citizens. Teaching this job is not banal at all, given its several novel characteristics. *Firstly, because science communication is more and more influenced by the logics of public relations and the emergent marketing of scientific institutions. Secondly, because science communication schools – although they realise many aspects of the difficulty in performing this job – cannot cope with the integration between teaching and topical themes in compliance with the demand for public involvement in decision-making on the development of science and technologies. The sum of these two factors imply a relevant risk: the end of critical journalism and science communication [use of italics].*

According to these fatalistic terms, the logic of public relations and marketing would be, by themselves, extremely harmful to scientific dissemination and could ultimately destroy it altogether. No doubt, Pitrelli (2008) warns that reliance on communication practices used in scientific institutions makes this risk a reality. However, the generalization undertaken by

the researcher is also dangerous, since it reduces communication practices in organizations to comply with supposedly authoritarian, verticalized and linear models – when the very field of organizational communication has admitted studies (OLIVEIRA; PAULA, 2007; MUMBY, 2009; MAFRA; MARQUES, 2013) that understand communication in organizations as a practice that may potentially lead to openness, learning and humanization, especially in democratic and pluralistic contexts. Thus, a further understanding about *public dialogue* can provide productive responses to the challenges posed in this work.

### **The public dialogue as a democratic imperative, science and citizenship in times of crisis**

An intriguing issue already mentioned motivates the present discussion: the clear association between science and citizenship, found in some recent scientific communication studies (MIZUMACHI et al., 2011; STODDEN, 2010; KOUPER, 2010; SILVERTOWN, 2009; COHN, 2008). In the brief review produced by Riesch et. al. (2013, p.1-2), the emerging notion of Citizen Science – also called *Public Participation in Scientific Research* – can be understood as follows:

First, it can be seen as a win-win situation where a project simultaneously delivers public engagement [...] as well as scientific research. [...] Citizen Science can also help monitoring the local environment, [...] empowering people to take ownership of their local environment. Second, Citizen Science, by involving the public directly in the production of scientific research, can help in teaching not only in terms of generating evidence but also in demonstrating how science is done, thereby enhancing public understanding of the processes of science, its inherent uncertainties, the methods it uses to arrive at conclusions and the practical skills scientists need to acquire in order to reach their conclusions. Third, Citizen Science projects can enhance democratic ‘ownership’ of the domains it investigates, environmental CS projects for example engage the local public with environmental concerns that are relevant to them and thus enhance civic engagement in local environmental matters [...]. In the process, through educating about science and scientific thinking, CS also often aims to enhance public decision making [...].

Thus, much more than a local and specific movement, Citizen Science seems to fit, ultimately, a kind of possible social response, engendered from the scientific fields themselves, aimed at broad social contexts that question the role of science nowadays. The explicit reference to the word *citizenship* is not unpretentious: it is included in the same reflective-social concern, while the development of an understanding about the

science crisis seems to agree with the set of reflections in search for contemporary validity to democracy (HABERMAS, 1997; COHEN, 1997; AVRITZER, 2000). This, in turn, is regarded as a social system and possible normative condition for the conflictual, plural and complex contemporary social contexts. Therefore, it is fundamental to recognize that the emergence of studies and democratic practices also indicates a relevant way for the collective construction of legitimacy and justice towards the public agendas of a given social context (HABERMAS, 1997). In particular, based on the decision to attribute an eminently public character to scientific agendas of knowledge production (DELFANTI, 2010), this finding explains better the approach of the term *citizenship* in the scientific field, but also focus on public participation and social dialogue as valid practices for accepting the permanence of scientific institutions in times of crisis.

In recent years, extensive literature has been produced on the role of public dialogue as an essential phenomenon for the production of democratic legitimacy, based on the idea of *deliberative democracy* and/or *public deliberation* (HABERMAS, 1997; COHEN, 1997; DRYZEK, 2004). Although controversial and polemic, German philosopher Jürgen Habermas (1997) continues to be a major reference in this field of studies, mainly due to his investigation on the elaboration of the concept of communicative rationality. Interspersed with important ideas related to advertising, reasonableness and public sphere, the concept sheds light on the complex social phenomenon that can legitimize public decisions, in view of the broad and constant discursive process of the expression of numerous controversies affecting the collective experience of a given context. Meanwhile, communicative rationality becomes an important ability for subjects in public reasoning occasions, for the construction of a communication motivated power, centered on the selection of the intended validity already mentioned that better provides moral and practical force, considering the public controversy under debate. In the midst of this communication process, which reveals the centrality of public and discursive use of reason in modern societies in crisis, Habermas (1997) identifies the emergence of the source of legitimacy of public decisions. And it is in such a way that contemporary democracies are called *deliberative* to the extent that they root the validity of their choices in a broad public deliberation process constituted by discourse and communication and guided by moral and practical reasons, validated by institutions and subjects, through interaction.

In recognition of the Habermasian contributions, while providing other perspectives to the idea of deliberative democracy, Bohman (2009, p.42) understands deliberation as “a collective social activity, steeped in the social action of dialogue – the exchange of reasons” (our translation). The author adds:

Public deliberation is a dialogue with a particular goal. It aims to overcome a problematic situation through the solution of a problem or a conflict. The

joint activity by which deliberation performs in the public context is dialogical and not merely discursive. Speeches employ specific regulative criteria of justification, and they are typically structured to favor a certain kind of demand. For example, scientific discourses are oriented toward the truth demands, while legal discourses are constrained by arguments and demands consistent with the body of law. In contrast, dialogue is the mere exchange of reasons. It does not necessarily aim to produce well justified demands, rather those broad enough and sufficiently justified to be accountable before an indefinite public of co-citizens (BOHMAN, 2009, p.69 – Our translation).

The nuances and differences between Bohman (2009) and Habermas (1997) are complex, and it would be impossible for the present work to exploit them properly. Besides, the idea of public deliberation includes a number of other aspects. However, it is necessary to recognize that Bohman (2009), while shedding light on the issue of *public dialogue*, recognizes that the times of public controversies are composed of plural participation of numerous agents seeking to convince each other and coordinate their actions. This dialogical process, according to the American scholar, is not open to a circle of experts alone, but also to any person who feels affected and desire to take part in the decision – whenever, in a specific social context, a problematic situation causes kind of break in the coordination of actions between subjects, motivating them to resume it from a dialogic public practice. Thus, public dialogue, as a cooperative activity, requires “no unanimous agreement among all or any aggregative agreement of each part, but an agreement distributive ideal in which each part has its own motivation to cooperate in a public judgment process” (BOHMAN, 2009, p.64 – Our translation).

The idea of public dialogue has been extremely fruitful for the understanding of the controversial phenomena involving contemporary contexts of a science in crisis: based on the extensive public controversy related to the constant search for legitimation of science before a broad and plural social context, it is not enough for scientific institutions to produce the known oriented institutional scientific discourse, as stated by Bohman (2009), aiming to be convicted by truth – since the very unwavering and absolutely irreproachable truth of modern science is being questioned. First of all, our time requires scientific institutions to perform a dialogical and public construction, supported by intelligible moral parameters communicatively validated by individuals who are, in some way, linked to these institutions and feel affected by them. In the Citizen Science phenomenon, this process seems to be dealt with in a very natural way: an environment essentially formed by experts is compelled, by a kind of *public fissure* democratically motivated, to perform a dialogic openness – which leads to the recognition that public choices/decisions supported by scientists and their institutions do not pre-reflectively carry any moral content that will be publicly

accepted beforehand. Therefore, it is inevitable that such choices/decisions go through a broad dialogic process of public validation, in which, in theory, all those concerned with the scientific world design socially arranged can participate. Thus, the understanding of the inevitable public dialogue phenomenon, turned into a problem also relevant to the field of Organizational Communication, can reveal consubstantial paths for a scientific institution to follow in order to build its communication policy in times of crisis.

### **Public dialogue as a practical imperative: fundamentals for an organizational communication policy in scientific institutions**

The prominence given in this work to the democratic idea of public dialogue is a great conceptual attempt to overcome the parallelism observed in epistemic actions in the field of Scientific Communication and those of Organizational Communication, as previously mentioned. Operating as a kind of normative parameter extended to organizational contexts of science, it is quite plausible that such idea can become the focus of any communication practice established at the interaction sectors of scientific institutions – since, in view of the vibrant motives of moral concept and practice present in contemporary democratic scenarios, public dialogue seems to work, without a doubt, as a kind of practical imperative in any communication process in the context of scientific organizations. Therefore, it is time to discuss how public dialogue parameter can 1) promote morally grounded choices, as regards the reasons for conducting an organizational communication policy; 2) produce the extensively mooted interrelation between the crisis of science and its institutions, scientific communication and organizational communication.

To start developing these challenges, it is necessary to recognize that producing a conceptual approach between organizational communication and public dialogue is not a new endeavor. In 1967, the classical scholar Harwood Childs defined the fundamental problem of Public Relations as the attempt to “reconcile with the public interest, or adjust to it, aspects of our individual or institutional behavior that has public meaning” (CHILDS, 1967, p.26). Thus, the ideas of reconciliation and adjustment become central actions to any organization seeking to survive in democratic contexts: since it is not possible to make any organizational particular interest prevail over public interest in a certain context, the role of public dialogue indicates, in fact, the interactional practice by which organizations should be inspired to produce the demand for reconciliation / adjustment. This is true because, for the author, any organizational behavior, either individual, or institutionally motivated, has public significance and should be adjusted to the complex set of always dynamic and provisional motivations that constitute the conflictive field of public interest. It may also affect and change such field. In this regard, we are already able to infer that any

transformation in the public interest field goes through a moral-practical consent/counter-consent of the subjects communicatively involved in such transformation.

Besides, this adjustment agrees with Mumby (2009), who proposes a critical reflection on organizational communication. This implies the consideration that the organizational contexts are intermingled with power struggles, immersed in cultural networks historically constructed and in deep interaction with the broader social context of the organization. In this sense, Mumby and Clair (2000, p.264-265) state that a critical approach to organizational communication is able to demonstrate, on one hand “the connection between the shared rules and values of an organization” and, on the other hand, “the means by which these norms and values are expressed”. Similarly to a battlefield, organizations are taken, under this perspective, as “social communities in which shared meaning is produced (...) [*and through which*] different groups compete for shaping the social reality of the organization to make it serve their own interests” [*emphasis added*] (Ibid, p.265). In this sense, much more than searching for centrality in the informational process, communication in organizations involves a process of humanization (MUMBY, 2009): it is necessary to consider, therefore, the role of difference, plurality, variety and originality inherent to the human constitution.

Thus, it is fundamental for such policy to be able to promote, nurture and manage public dialogue, from a process of reconciliation / adjustment, glimpsed between the public interest and the multiple set of interests found in the complex context of scientific institutions. In addition, the understanding of Organizational Communication as a field responsible for the production of humanization in the environments of organizations corroborates the idea that communication policies should primarily be concerned about materializing the values institutionally agreed, mainly under public crisis and controversy. For all these reasons, an organizational communication policy within the pluralistic contemporary societies, in view of the social scenarios of science crisis, can be glimpsed as a *right* of the public affected by the existence of a scientific institution and, at the same time, as a prominent *duty* within such institution. Therefore, such organizational policy should also be able to support the processes of communication and scientific dissemination, and promote any communication process that involves the relationships with all types of public (employees, suppliers, community, among others).

Finally, one must consider communication involved with accountability efforts (BOHMAN, 2009), which aim to make scientific institutions sensitive to the permanent process of due public accountability. This process continuously propels it to inform and prepare public justifications of the role it has played socially – so that such a process cannot be fully predicted. In this sense, public dialogue becomes a permanent challenge, extended to its leading representatives and all its members in general – a process by which the organization (re) builds its public legitimacy. For these reasons, it is imperative to create an organizational communication policy for scientific institutions that not only gives voice

to the organization, but also ears, so as to promote the necessary changes, resulting from an everyday meeting and institutionalized with its countless and varied interested public.

For all those reasons, many questions should be discussed in further research for a broad and deep understanding of the main problems here proposed. Despite the indisputable role of public dialogue, for Bohman (2009), it is necessary not to forget the numerous forces and tensions present in the organizational scientific environment. The unquestioned and exclusive belief in the success of public deliberation is pretty naive, since this attitude leads to ignorance the powers of science and scientific choices, which are often the unchanged, and whose single goal is the acquisition of academic capital and social prestige. Thus, in spite of a relative openness to public dialogue in the context of scientific institutions, it is important to stress the concept of our contemporary context as tense and controversial, in which contradictory impulses coexist. For example, there are demands for high productivity that coexist, paradoxically, with efforts to value scientific procedures that go against a quantification standard.

Accepting criticism and opposite ideas as natural elements in any public dialogue process seems to be an extremely revealing action. Moreover, an equally enlightening perception must consider that, in the scientific institution context, there can (and should) be multiple initiatives, such as blogs written by scientists, deliberative forums and participatory experiences within the scientific production of a certain field. Moreover, it is not by chance that concern with moral issues are increasing in contemporary universities: despite the endless debate about the limits of ethics committees and the institutionalization of scientific production, the recent presence of such committees in the scientific organizational environment may reflect, ultimately, the huge demand for public dialogue that society exacts from scientific institutions. Ultimately, this demand exceeds the limits of the so-called closed worlds of science and their headquarters, often liberal, and reveals the moral and practical confrontational and intrinsic character of the relationship between science, subjects and knowledge, having the recent democratic contexts, still regarded as possible, as the normative standard.

## References

AVRITZER, Leonardo. Teoria democrática e deliberação pública. **Lua Nova**, São Paulo, n.50, p.25-46, 2000. Disponível em: <[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102-64452000000200003&lng=en&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-64452000000200003&lng=en&nrm=iso)>. Acesso em: 21 jan. 2016.

BOHMAN, James. O que é a deliberação pública? Um abordagem dialógica. In: MARQUES, Angela C. S. **A deliberação pública e suas dimensões sociais, políticas e comunicativas**. Belo Horizonte: Autêntica Editora, 2009. p.85-108.

CASTELFRANCHI, Yuri. Science and communication in Brazil: evolution, globalization, and contingencies. **Journal of Science Communication**, v.3, n.4, p.1-4, December 2004.

CHILDS, Harwood L. O problema fundamental das Relações Públicas. In: \_\_\_\_\_. **Relações públicas, propaganda e opinião pública**. 2.ed. Rio de Janeiro: FGV, 1967. p.16-26.

COHEN, J. Deliberation and democratic legitimacy. In: BOHMAN, J.; REIGH, W (Orgs.) **Deliberative Democracy**. Cambridge-Mass: MIT Press, 1997. p.67-91.

\_\_\_\_\_. Citizen Science: Can Volunteers Do Real Research?, **BioScience**, v.58, n.3, p.192-197, 2008.

DELFANTI, A. Open science, a complex movement. **Journal of Science Communication**, v.09, n.03, p.1-2 September 2010.

DRYZEK, J. S. Legitimidade e economia na democracia deliberativa. IN: COELHO, V. S.; NOBRE, M. **Participação e deliberação: teoria democrática e experiências institucionais no Brasil contemporâneo**. São Paulo: Editora 34, 2004. p.21-41.

DUARTE, J.; BARROS, A. T. de. (Orgs.) **Comunicação para ciência, ciência para comunicação**. Brasília: Embrapa Informação Tecnológica, 2003.

EPSTEIN, Isaac; BERTOL, Sônia. Caminho das pedras: a difícil arte de comunicar a ciência para o público. **Comunicação & Sociedade: Revista do Programa de Pós-Graduação em Comunicação Social da Umesp**, São Bernardo do Campo, v.26, n.43, p.11-27, 1o. sem. 2005.

EPSTEIN, Isaac. Comunicação da ciência: rumo a uma teoria da divulgação científica. **Revista Organicom**, Ano 9, Edição Especial, n.16/17, p.19-38, 2012.

FOUCAULT, Michel. As ciências humanas. In: \_\_\_\_\_. **As palavras e as coisas – uma arqueologia das ciências humanas**. 8.ed. São Paulo: Martins Fontes, 1999. p.475-536.

HABERMAS, J. Política deliberativa: um conceito procedimental de democracia. In: \_\_\_\_\_. **Direito e Democracia: entre faticidade e validade**. Rio de Janeiro: Tempo Brasileiro, 1997. p.9-56.

KOUPER, I. Science blogs and public engagement with science: practices, challenges, and opportunities, **Journal of Science Communication**, v.09, n.1, p.1-10, 2010.

KUHN, Thomas. **A estrutura das revoluções científicas**. São Paulo: Editora Perspectiva, 1998.

LYOTARD, Jean-François. **O pós-moderno**. 3.ed. Rio da Janeiro: José Olympio, 1988.

MARQUES, A. C. S.; MAFRA, R. L. M.. Diálogo no contexto organizacional e lugares de estratégia, argumentação e resistência. **Organicom**, a.10, n.19, p.82-94, 2º sem. 2013.

MIZUMACHI, Eri; MATSUDA, Kentaro; KANO, Kei; KASUTO KATO, Masahiro K. Scientists' attitudes toward a dialogue with the public: a study using science cafes. **Journal of Science Communication**. v.10, n.4, p.1-11, December 2011.

MUMBY, Dennis K. A comunicação organizacional em uma perspectiva crítica. Entrevista. **Revista Organicom**, a.6, Edição Especial, n.10/11, p.191-207, 2009.

\_\_\_\_\_; CLAIR, Robin. El discurso en las organizaciones. In: VAN DIJK, Teun A. **Comp. El discurso como interacción social**. Barcelona: Gedisa, 2000. p.263-297.

OLIVEIRA, Ivone de Lourdes; PAULA, Maria Aparecida de. **O que é comunicação estratégica nas organizações?** São Paulo: Paulus, 2007.

OLIVEIRA, Maria J. da Costa. **Comunicação Pública**. Campinas: Átomo & Alínea, 2004.

PESSONI, A. Comunicação para a saúde em ambientes colaborativos: o empoderamento do paciente. **Organicom**, v.9, p.67-78, 2012.

PITRELLI, Nico. Science and society: a dialogue without communicators? **Journal of Science Communication**, v.7, n.1, p.1-3., March 2008.

RAMALHO E SILVA, Marina. A reference for science communication. **Journal of Science Communication**, v.10, n.03, p.1.-3, 2011.

RIESCH, H.; POTTER, C.; DAVIES L. Combining citizen science and public engagement: the Open Air Laboratories Programme. **Journal of Science Communication**, v.12, n.03, p.1-19, 2013.

SANTOS, Boaventura de Souza. **Introdução a uma ciência pós-moderna**. Rio de Janeiro: Graal, 1989.  
\_\_\_\_\_. **Um discurso sobre as ciências**. São Paulo: Cortez, 2003.

SCROFERNEKER, Cleusa M. Andrade. As ouvidorias virtuais em instituições de ensino superior brasileiras. **Organicom**, n.12, p.131-149, 1 semestre 2010.

SILVERTOWN, J. A new dawn for citizen science. **Trends Ecol. Evol.** v.24, n.9, p.467-471, 2009.

STODDEN, V. Open science: policy implications for the evolving phenomenon of user-led scientific innovation. **Journal of Science Communication**, v.09, n.01, p.1-8, 2010.

TARGINO, M.das Graças. Comunicação científica: uma revisão de seus elementos básicos. **Informação & Sociedade: Estudos**, v.10, n.2, p.1-27, 2000.

ZAMBONI, L. M. S. **Cientistas, jornalistas e a divulgação científica**: subjetividade e heterogeneidade no discurso da divulgação científica. Campinas: Autores Associados, 2001.

Rennan Lanna Martins Mafra

Professor at the Department of Social Communication and the Post-Graduate Program in Rural Extension of the Universidade Federal de Viçosa (UFV). Master and PhD in Social Communication from the Universidade Federal de Minas Gerais (UFMG). He develops teaching, research and extension activities on issues related to theories of communication, public space, democracy, organizational communication, environmental and public health issues, social mobilization and discussions on development in countryside-urban city dynamics. He is also involved in studies on the relationship between individuals, public experience and languages, and between individuals, organizations and society. He is the leader of Copráticas – a Communication and Social Practices Research Group. He is co-author of the book *Comunicação e Estratégias de Mobilização Social* and author of *Entre o espetáculo, a festa e a argumentação: mídia, comunicação estratégica e mobilização social*, both published by Autêntica Editora. Email: rennan.mafra@ufv.br.

Received on: 04.30.2015

Accepted on: 12.30.2015