

TEACHING DIGITAL RHETORIC: BUILDING AN ARGUMENTATIVE ETHOS FOR DIGITAL MEDIA

Sara Cerqueira Pascoal
ISCAP
Portugal
spascoal@iscap.ipp.pt

Abstract

In this paper we will describe a *curriculum* of Rhetoric included in a Business Communication Undergraduate Program Studies at ISCAP. This *curriculum* includes the designing of arguments and the identification of fallacies applied to the industries of persuasion and to social media, analyzing how the success of brands depends upon the use of a strategic communication, where rhetoric plays an important role. It also emphasizes the importance of teaching and exploring the ethos, pathos and logos theory for building cogent arguments in a social media context. In addition, based on the new communication model done via various electronic formats, and considering that the internet and social media have “changed the way communicate, turning writing into conversation”, we will reflect on Paul Graham’s hierarchy of disagreement, proposing a new pyramid for *ad hominem* fallacies. Finally, we draw a basic collection of competencies, in order to become a more effective writer and communicator in a digitally mediated space.

Key-words: rhetoric, fallacies, argumentation theory, social media, ethos, pathos, logos

'We don't have a choice on whether we do social media; the question is how well we do it.'

Erik Qualman

Defined by Aristotle as "the faculty of observing in any given case the available means of persuasion", rhetoric has never as today played such an important role in society, economics, politics and communication. If Aristotle considered it as a counterpart of both

logic and politics, nowadays rhetoric is present in the most important industries of persuasion, such as advertising, public relations or marketing. If the ancient Greeks discovered persuasive discourse as a means of deciding and finding social and political consensus for the faith of the polis, modern societies explore the power of rhetoric and apply it to every aspects of the daily life, not just for political ends, but also for social, economic, scientific and religious purposes. In fact, the emergence of mass media such as radio, cinema, photography and the internet, as well as the relevance of advertising to markets, brought rhetoric more prominently into people's lives. More recently the term rhetoric has been applied to media forms other than verbal language, the visual rhetoric, a theoretical framework describing how visual images communicate (cf. Barthes, Durand, Joly, Groupe MU). The term digital rhetoric has been, therefore, used to convey new types of persuasive communication in different formats, iconic, textual or multimodal. Almost all authors unanimously agree that electronic communication and online and social media have opened new perspectives to an old discipline, but are also aware of the challenges that lie ahead:

“The concept of a digital rhetoric is at once exciting and troublesome. It is exciting because it holds promise of opening new vistas of opportunity for rhetorical studies, and troublesome because it reveals the difficulties and the challenges of adapting a rhetorical tradition more than 2,000 years old to the conditions and constraints of the new digital media.” (ZAPPEN, 2005: 319)

Teaching digital rhetoric it is also simultaneously a challenge and an opportunity to design both a curriculum and a methodology adapted to the new media, and to the training of competencies that are essential to Communication and Marketing students. In addition, social media are a fundamental shift in the way we communicate and discover new information. The medium uses web and mobile technologies to facilitate and support interactions and dialogue between individuals, communities, brands and organizations (Blanchard, 2011). Communication and marketing professionals are nowadays involved in content development of social media pages and successful brand strategies depend on how

social media discourse is planned and delivered, based on sound communication principles that we can date back to Aristotle's time.

This article reflects on the experience of lecturing and designing such a curriculum and methodology for the discipline Argumentation Theory and Practice included in the undergraduate degree in Marketing and Business Communication at ISCAP (Instituto Superior de Contabilidade e Administração do Porto/ Instituto Politécnico do Porto) and divided in two semesters. The starting point for the design of this curriculum was the definition of the fundamental competencies aiming to help students to become highly adaptable communicators in different contexts, but focalizing on the new demands on communication mediated by technologies. At the end of the semester, course topics and readings were designed to equip students to:

(1) acquire and/or develop the skills needed in order to critically examine a line of thought and the use of evidence. Also to master the theoretical tools and methods involved in understanding, analyzing, and evaluating arguments.

(3) avoid confusions and fallacies when discussing theoretical issues. Be able to clearly recognize others', and defend their own positions.

(2) engage in research topics applying them to digital media.

(5) become more effective writers and communicators in digitally mediated spaces.

1. Understanding, analyzing and evaluating arguments

In order to achieve these purposes, we developed a curriculum that focus not only on the importance of constructing strong and cogent arguments, but also on the relevance of recognizing and avoiding logical fallacies. Writing in social media is both timely and exciting, so we started to pay attention to the intersections of writing studies and social media tools and their pedagogical applications. In an age of nearly ubiquitous social media use, it is important to pay attention to these technologies with a specific eye toward the copious amounts of writing that are composed, circulated and are read in social media. We

also examine how writing is both facilitated by social media and influenced by the affordances and constraints of social media technologies.

To develop excellence in assessing, by thoughtful reaction, the logical soundness or the plausibility of various arguments used in public relations, political, economical, marketing or public discourses it's important to recognize some of the most important theories and techniques for creating persuasion and a sound argumentation. Hence, the framework for this reflection, offered in this course, is a comparison between two major works: Aristotle's *Rhetoric* and Chaim Perelman and Lucie Olbrechts-Tyteca's, *The New Rhetoric: A Treatise on Argumentation*.

Both books have similar designs and offer inventories of rhetorical tactics. Aristotle's *Rhetoric* gives advice about things like what constitutes good style (clarity, appropriateness to occasion, etc.) and how one ought to use metaphors to make them effective. Writing in the mid 20th century, Perelman and Olbrechts-Tyteca do not offer much advice specific to individual tactics or effectiveness. Instead, they offer broad conclusions like arguments acceptable to the universal audience are the strongest and values are specific to audiences, so one had better start with values common to his or her auditors if one expects to do any convincing. The classical scholar and the two philosophers both present the classical canons of rhetoric (*inventio, dispositio, elocutio, memoria, pronuntiatio*), focusing particularly on *inventio*.

Aristotle divides the means of persuasion, appeals, into three categories, *Ethos, Pathos* and *Logos*. *Ethos* is the credibility of the rhetor or an ethical appeal, an argument that uses the character of the author to convince or persuade others. We tend to believe people whom we respect, so in every argumentation the rhetor must project an impression of being an authority on the subject, as well as someone who is likable and worthy of respect. In classes, we analyze how rhetor's character is evaluated by students and how we tend to be more influenced by someone we trust or admire. *Pathos*, or emotional arguments, means persuading by appealing to the audience's emotions. We expose students to a large variety of texts, ranging from classic essays to contemporary advertisements to see how pathos, emotional appeals, are used to persuade. Language choice affects the audience's emotional response, and emotional appeal can effectively be used to enhance an argument. *Logos*, or logical arguments, means to persuade by using reason, implying the cohesion and coherence

of the message, the consistency of the claim and its clarity to the audience, supporting the effectiveness of the evidence. For the study of this technique, Aristotle's favorite, we look at deductive and inductive reasoning, and discuss what makes an effective, persuasive reason to back up your claims. Giving reasons is the heart of argumentation, and cannot be emphasized enough. In this course we study the types of support you can use to substantiate your thesis, and look at some of the common logical fallacies, in order to avoid them in your writing.

As for Perelman and Olbrechts-Tyteca, they define argumentation as "*the discursive techniques allowing us to induce or to increase the mind's adherence to the theses presented for its assent*" (PERELMAN, OLBRECHTS-TYTECA, 1969:4). The modern theorist's vision of argumentation extends beyond what Aristotle offered. One of these extensions is a deeper approach of practical argumentation, allowing us to understand which techniques and arguments are more efficient, but also why are they more powerful than others. The other difference between Aristotle's treatise and the modern theorists is the discussion of the audience (LONG, 1983). To achieve persuasion the rhetor must utilize values and beliefs shared with the audience. As a result, that audience serves as an inventional tool that aids in the creation of the discourse. Perelman divides the audience in three types: the self, the universal audience and the particular audience.

"The particular audience is the primary concern of Perelman's theory of argumentation. A universal audience supplies the self-evident data employed by the rhetor, but the particular audience determines all the other characteristics of a particular instance of argumentation which enable the rhetor to persuade the audience: it is as if the audience persuades itself" (LONG, 1983:109).

Taking into account all these theories, students are expected to develop and engage in logical discussions, using the taxonomy of the argument techniques outlined by Perelman, namely the distinction between arguments by association and dissociation.

“In the various argument schemes that belong to association, the speaker establishes a link between two independent entities in order to transfer judgments of the audience about the one thing to the other one. In dissociation, the speaker splits up a notion considered by the audience to form a unitary concept into two new notions, one of which comprises the aspects of the original notion that the speaker considers real or central (term II), the other, the aspects that he considers apparent or peripheral (term I)” (VAN REES, 2007: 1).

If analogies are the most important examples of arguments by dissociation, schemes of association are subdivided in three categories

- (1) *quasi-logical arguments*, that Perelman defines as “similar to the formal structures of logic and mathematics” (2001, p. 1396), thus in form, similar to syllogisms seeking the adherence of the audience.
- (2) *arguments based on the structure of reality*, consisting on arguments by *succession*, establishing a relationship between phenomenon on the same level (cause and effect) –, and on arguments by *coexistence*, which rely on relationships between phenomenon on the same levels (person and act, act and essence).
- (3) arguments establishing the structure of reality, like analogies, models, examples or illustrations and metaphors.

Finally, although these authors reject to apply their work to media discourse, and prefer to focus on the discursive means to induce persuasion, Perelman’s theory on rhetoric is later complemented by a broad approach of the theories underlying the relevance of visual communication, particularly in mediated environments, exploring and applying the considerations and methods suggested by Roland Barthes, Jacques Durand, Groupe Mu and Martine Joly (BARTHES, 1964; DURAND, 1970; JOLY, 1986)

2. Avoid fallacies

An important aspect of persuasion and argumentation is the ability to recognize fallacies. This ability enables one not only to assess the validity of information and arguments presented by others but also to make your own analyses with logic and clarity, improving the way we speak and write.

Thus, after presenting an argumentation theoretical model to our students and engaging them in to discussions using *Facebook* or *Twitter*, we offer an overview of the classical logical fallacies, applying them to advertising. First, we establish a distinction between the classical fallacies proposed by Aristotle's *Sophistical Refutations*, the first systematic study and list the informal fallacies, who was later added by different authors. Aristotle divided all fallacies into a list of thirteen fallacies, dividing those dependent on language (*in dictione*) of those outside of language (*extra dictione*).

Additionally, we also approach modern logic textbooks, which divide informal fallacies into fallacies of ambiguity and material fallacies. Fallacies of ambiguity arise from the ambiguity of words or sentences in which ambiguous words occur, such as the fallacies of accent, amphiboly, equivocation, composition and division. Material fallacies are due to reasons other than the ambiguity of language and are further divided into the fallacies of relevance and insufficient evidence. The fallacy of relevance occurs in those arguments whose premises are logically irrelevant to the truth of the conclusion and are hence incapable of establishing it. Many informal fallacies of this kind have a Latin name of the form “argumentum ad ...,” (such as *argumentum ad baculum*, *argumentum ad hominem*, *argumentum ad ignorantiam*, *argumentum ad misericordiam*, *argumentum ad populum*). Probably most common fallacies fall into the insufficient evidence category, namely, appeal to false authority, hasty generalization, false cause (*post hoc ergo propter hoc*, *cum hoc...*), false dilemmas, false analogies, slippery slope, *petitio principii*, *ignoratio elenchi* or loaded question.

Students begin their analysis by choosing and identifying logical fallacies in advertising, where the power of fallacious persuasion it's often overwhelming. Separately or in groups, students must identify and deconstruct the most common fallacies used in ads. They are also encouraged to share and express their opinion about the persuasiveness of the ads considering the use of fallacies. Here are some examples of the most used fallacies, such

as *ad populum* (“9 of 10 dentists can’t be wrong”), appeal to false authority (Marilyn Monroe says: Yes. I use Lustre cream shampoo), *non sequitur* (we make Virginia Slims especially for women, because they are biologically superior to men) and appeal to the emotions (*ad misericordiam*).

Another assignment distributed to students consists in analyzing daily discourse to discover paralogsms (invalid arguments made unconsciously) and sophisms (invalid conscientious arguments) on *facebook* posts or *tweets*. As discourse analysis shows, a society where social media plays a very important role, and where the internet is turning writing into conversation, argumentation paradigms have shifted from face-to-face models into virtual discussions, changing the way we engage in argumentation and designing new forms of interaction. As Paul Graham, the founder of Yahoo, puts it:

“Twenty years ago, writers wrote and readers read. The web lets readers respond, and increasingly they do—in comment threads, on forums, and in their own blog posts. Many who respond to something disagree with it. That's to be expected. Agreeing tends to motivate people less than disagreeing. And when you agree there's less to say. You could expand on something the author said, but he has probably already explored the most interesting implications. When you disagree you're entering territory he may not have explored. The result is there's a lot more disagreeing going on, especially measured by the word. That doesn't mean people are getting angrier. The structural change in the way we communicate is enough to account for it. But though it's not anger that's driving the increase in disagreement, there's a danger that the increase in disagreement will make people angrier. Particularly online, where it's easy to say things you'd never say face to face. If we're all going to be disagreeing more, we should be careful to do it well. What does it mean to disagree well? Most readers can tell the difference between mere name-calling and a carefully reasoned refutation, but I think it would help to put names on the intermediate stages.
(<http://www.paulgraham.com/>)

Paul Graham proposes a pyramid of a disagreement hierarchy, where the bottom represents the most used arguments and the top the less. The most sound claims (refutation of the central point or refutation) used for a cogent argumentation, are obviously the most

difficult to build. As far as the class analysis of posts or blogs has showed, fallacies, such as name calling and ad hominem arguments are the majority.

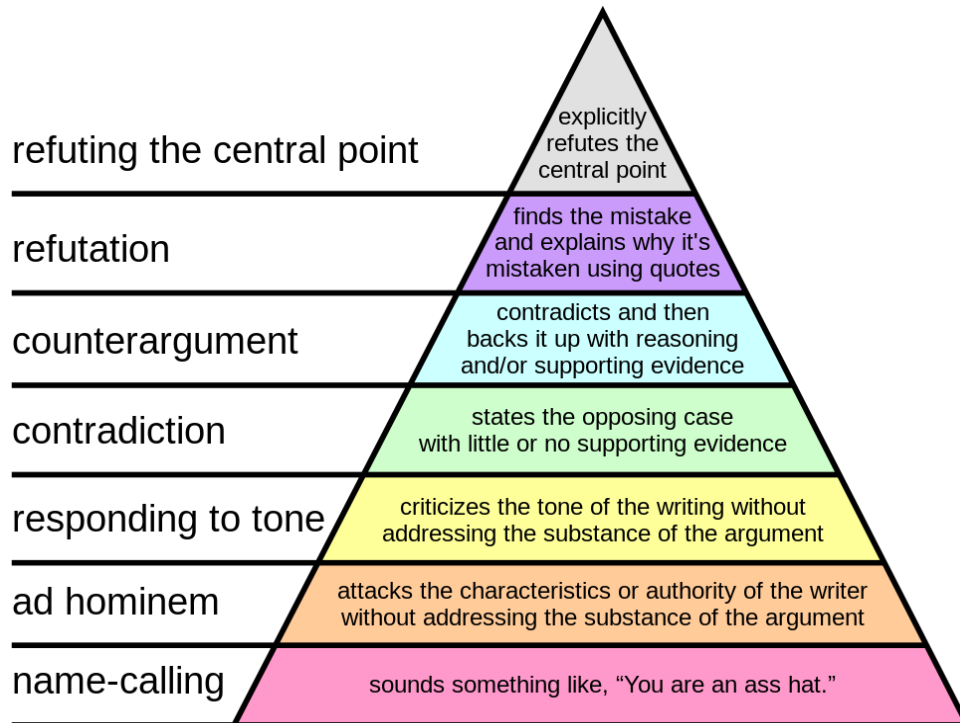


Fig. 1: Hierarchy of Disagreement by Paul Graham¹

But not all *ad hominem* arguments are equally fallacious. Douglas Walton argues that although the *argumentum ad hominem*, or personal attack argument, has been traditionally treated as a fallacy in logic, recent research in argumentation shows that, in many cases - including cases in political argumentation -, *ad hominem* arguments, as used in conversational arguments, are not fallacious. Research has shown that, while some personal attack arguments can definitely be judged fallacious, many others are quite reasonable (when evaluated in the appropriate context), while still others should be evaluated as weak (insufficiently supported) but not fallacious (WALTON, 1998).

¹ [http://en.wikipedia.org/wiki/Paul_Graham_\(computer_programmer\)#Graham.27s_hierarchy_of_disagreement](http://en.wikipedia.org/wiki/Paul_Graham_(computer_programmer)#Graham.27s_hierarchy_of_disagreement)

So we've decided to propose students the design of another pyramid for *ad hominem* arguments. Here's our proposition of an ad hominem pyramid:

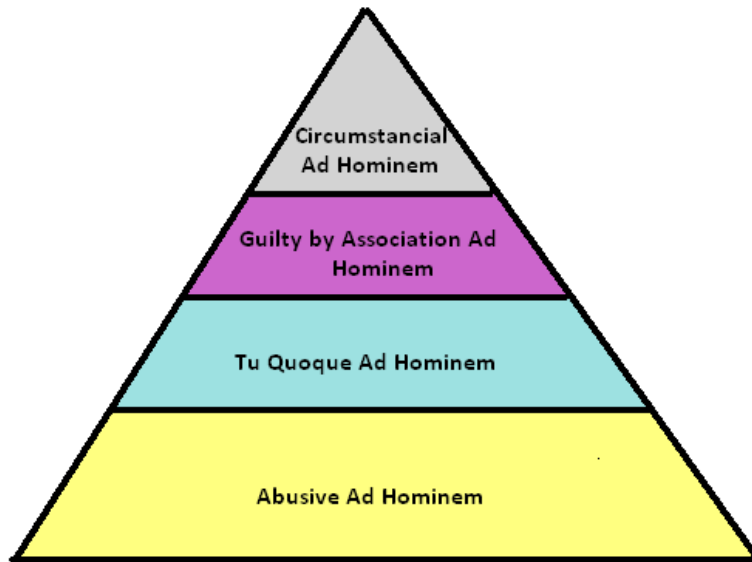


Fig. 2: Ad Hominem Pyramid

At the bottom of the pyramid, the most used arguments in social media environments - *Abusive ad hominem* - usually involves insulting or belittling one's opponent in order to attack his claim or invalidate his argument, but can also involve pointing out true character flaws or actions that are irrelevant to the opponent's argument. *Tu Quoque ad hominem*, also known as “you too” fallacy, hypocrisy or personal inconsistency, means claiming the argument is flawed by pointing out that the one making the argument is not acting consistently with the claims of the argument. *Guilty by association ad hominem* is the attempt to discredit an idea based upon disfavored people or groups associated with it. Finally, *ad hominem circumstantial* points out that someone is in circumstances such that he is disposed to take a particular position. *Ad hominem circumstantial* constitutes an attack on the bias of a source. It consists on questioning the motives of the arguer because he has a conflict of interests.

3. Engaging in research topics

Based on the foregoing, students are expected to engage in research topics on the argumentative power of social media, choosing two concurrent brands and submitting them to an analysis, using one of the following metric software: www.quintly.com, or www.simplymesured.com.

While much has been written and questioned about the value of social media, we believe that, like Jim Sterne pinpointed, the most valuable brands in the world are experiencing a direct correlation between superior financial performance and a deep commitment in digital social media. The relationship is obvious and significant: companies with greater commitment in the digital social media are actually more successful financially (STERNE, 2010). We've asked the students to try to answer the following questions: (1) How do companies look at their presence and at the return on investment (ROI) of their communication in digital social media? (2) How do you prove that this medium is ideal to achieve the proposed objectives, which is to reach the target audience, and finally (3) what monitoring tools may be applied in digital social media?

To do so, they would have to measure and interpret three research items to be chosen brands: (1) coverage or visibility, (2) influence and (3) engagement.

To analyze the visibility of the brand, i.e., the percentage of people in a group we want to reach with our message, students would have to consider items such as: page views, number of visitors, entries (amount of text or topics in a community), number of groups (number of groups, forums that exist on the network), visit time (time spent by the visitor on the site) and traffic sources ("where they come from" people who visit the network).

To understand the influence pattern, i.e., the degree of attention that a certain profile or content may eventually generate in others, they would have to collect data about *referrals* (number of links pointing to that network or content; it is important to know the provenance of these references targeting purposes) and *shares*. The influencers are divided into three different groups: key influencers, social influencers and known influencers.

Thirdly, in order to measure the engagement generated by the brands, which allows you to analyze the interaction of visitors and understand what they seek, as well as the possibility of the company to understand them better. The engagement usually consists in

an analysis of the *reviews* (community responses to the subject), of the *active members* (amount of people who actually participate in the community), of the *publication frequency* (contribution of the participants in their networks if daily, weekly monthly), of *likes* (number of times it has been marked as "like" on Facebook) and *retweets* (number of times the message was relayed in microblogging networks like Twitter).

All the collected, analyzed and interpreted data, using *simplymeasured* or *quintly*, allows students to know and determine the best tools for social media metrics and simultaneously to understand which social media is adequate to the specificities of brands and how brands (*ethos*) can improve their communication by using correct strategies (*logos*) adapting them to their publics (*pathos*) and to the media.

4. Becoming effective communicators on the web

In the *Gutenberg Galaxy*, written in 1962, Marshal McLuhan argued that the invention of the printing press has revolutionized Western Society by transforming it into a scattered collective of alienated individuals, disconnected from the consequences of their actions. Recently, Jaron Lanier, a computer scientist currently working for Microsoft, has brought out a very critical point of view of the turn of the Web 2.0, that with its anonymously written wikis and multiple-choice expressions of personality - on Facebook – is eating away at our very souls. Lanier's biggest concern with the open culture nourished by Web 2.0 has to do with the disappearance of the "phenomenon of individual intelligence" (LANIER, 2010:5):

The central mistake of recent digital culture is to chop up a network of individuals so finely that you end up with a mush. You then start to care about the abstraction of the network more than the real people who are networked, even though the network by itself is meaningless. Only the people were ever meaningful. (LANIER, 2010: 17)

If Lanier's perspective may be considered controversial, his concerns have the ability to remind us teachers and researchers that using web2.0, and exploring digital literacies,

must also imply the practice of a critical literacy. An attempt to integrate technologies and social media – like Facebook, Twitter or YouTube – in the classroom could be seen, in the context defined by Lanier, as ironical. However, we believe that the theories of classical rhetoric are at the center of Lanier's issues, fostering a method and an ethic to use on the web, which can be broadly conveyed by the ethos, *pathos*, *logos* theory.

As explained by António Fidalgo (2010), the communication model underlying the Aristotelian definition of rhetoric is triangular: the speaker (ethos), the message (logos) and the audience (pathos). The new digital rhetoric, mediated by technology, adds another element: the means, which creates a square model of communication. It is not a mere additional element, but an element that intervenes and influences the relationships between the other elements. "The relationship of a speaker with the listener is changed substantially if it is mediated, such as the message changes depending on the environment in which it is conveyed" (FIDALGO, 2010: 5).

The lesson that medium is the message, that we've learned from McLuhan, has in fact become a trope, encapsulating the fundamental premise that the medium contains messages. It is undeniable that the adaptation to the medium, but especially the access to the medium is nowadays more relevant than to the audience. Audiences are getting today more and more virtual, by the influence of the medium. Therefore, the message must also shift accordingly to the medium and the audience. The control of the medium is essential for a rhetor who wants to persuade the public opinion. But it is also fundamental to be a credible rhetor. Jaron Lanier criticizes the atomization of the person on the bias of the anonymity brought up by Web 2.0. The classical rhetoric communication, based on the individual was replaced by a polymorphic identity, of economical, political and social nature. Companies, brands, politics are nowadays complex figures, where a myriad of individuals cooperate to create an image of credibility. Branding strategies are, consequently, at the core of a brand's success, namely by delivering the message clearly, confirming credibility, connecting target prospects emotionally and motivating the buyer.

For all these reasons, it's crucial to build an argumentative ethos for social media, ensuring that identity and credibility lie at the heart of our uses of Web 2.0.

Conclusions

We believe, like the MIT group headed by Anne Burdick, that “in the 21st century, we communicate in media significantly more varied, extensible, and multiplicative than linear text. From scalable databases to information visualizations, from video lectures to multiuser virtual platforms, serious content and rigorous argumentation take shape across multiple platforms and media. The best Digital Humanities pedagogy and research projects train students both in “reading” and “writing” these emergent rhetoric and in understanding how they reshape and remodel humanistic knowledge. This means developing critically informed literacies expansive enough to include graphic design, visual narrative, time-based media, and the development of interfaces (rather than the rote acceptance of them as off-the-shelf products).” (BURDICK et al., 2012: 10). The necessary skills to become a highly expert communicator in a digital mediated space must therefore include a complete approach and knowledge of the classical literacies, but also of the modern literacies inherent to a multimodal rhetorical discourse, which is fundamental for the visibility of the individual and of brands on the internet. The new rhetor must also be able to handle the language as a reasoning tool with conceptual accuracy. He must be able to ensure the quality of the linguistic and communicative identity of a company, managing its standardization in terms of terminology and its stylistic harmonization. And since digital spaces and media have brought orality back into the mainstream of argumentation, with vlogs, podcasts, audio books, leading to the resurgence of voice, gestures, and all forms of non-verbal communication, we find it also extremely important to draw attention to the relevance of embodied performances in social media, always bearing in mind that “you have to be somebody before you can share yourself” (LANIER, 2010: 4).

References

- BARTHES, R. ([1964] 1987) "Rhetoric of the Image" in *Image, Music, Text*, Glasgow: Fontana Press.
- BLANCHARD, O. (2011). *Social media ROI*. Indianapolis, IN: Que.
- BROWN, M. (2011). Southwest airlines social media strategy lessons for all organizations *Social Media Today*. Retrieved from <http://socialmediatoday.com/mikebrownbrainzooming/266092/southwest-airlines-social-media-strategy-lessons-allorganizations>
- BURDICK, A. et al. (2012). *Digital Humanities*, Massachusetts, Massachusetts Institute of Technology.
- DU PLESSIS, C. (2013), An exploration of digital rhetoric in a social network environment, in *Communicare*, vol 32:1, 1-20.
- DURAND, J. (2008) "Rhetoric and the Advertising Image". Tr. Theo van Leeuwen. Curtin University of Technology.
Retrieved from
http://info.ccs.curtin.edu.au/AJCS_journal/J1V2/J1V2%20RHETORIC%20AND%20THE%20ADVERTISING%20IMAGE.htm
- HACLEY, C. (2003), We Are All Customers Now . . . ? Rhetorical Strategy and Ideological Control in Marketing Management Texts, in *Journal of Management Studies*, Oxford, Blackwell Publishing, 40: 5, 1325-1352.
- JOLY, M. (1986) *Introdução à análise da imagem*. 2ed. Campinas: Papirus,
- LANIER, J. (2010). *You are not a gadget: A manifesto*. New York: Random House.
- LONG, R. (1983), The Role of audience in Chaim Perelman's New Rhetoric, *Journal of Advance Composition*, 107-117.
- MARSDEN, P. (2010). A new age of enlightenment. *Marketing* 14-14. Retrieved from
<http://search.proquest.com/docview/214986270?accountid=1557>
- PATHANK, S. (2012). Five tips for building your brand's social personality. *Advertising Age*.
<http://adage.com/article/special-report-digital-conference/tips-building-brand-s-socialpersonality/234190/>
- PERELMAN C., and OLBRECHTS-TYTECA, L. (1969) *The New Rhetoric: A Treatise on Argumentation*, trans. John Wilkinson and Purcell Weaver. Notre Dame: University of Notre Dame Press
- PROJECT MUSE (2006) Teaching Digital Rhetoric: Community, Critical Engagement, and Application, in *Pedagogy* 6, 2, 231-259.

STERNE, J. (2010). *Social Media Metrics: How to Measure and Optimize Your Marketing Investment (New Rules of Social Media)*. John Wiley & Sons.

VAN REES, M.A.. (2007). .Dialectical and rhetorical effects of dissociation. In Hansen H.V., *et al.* (Eds.), *Dissensus and the Search for Common Ground*, CD-ROM, pp. 1-12. Windsor, ON: OSSA.

WALTON, D. (1998) *Ad Hominem Arguments*. Alabama: Alabama University Press.

YOUNG, J. R. (2010). Teaching with Twitter. *Education Digest*, 75(7), 9-12.

ZAPPEN, J. P. (2005). Digital Rhetoric: Toward an Integrated Theory, in *Technical Communication Quarterly*, 14 (3), 319–325.

Paul Graham's website: <http://www.paulgraham.com>