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The scientific field of Communication: examining its intellectual structure through cocitation analysis

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Abstract: This article presents the results obtained in the analysis of Communication as a scientific field from a metric point of view. The research employed bibliometric techniques and visualization tools aimed to reveal the intellectual structure of the field in question, taking as source of analysis studies published between 2000 and 2007 in the mainstream international journals that comprise the Web of Science. Considering the source analyzed, it was found that Communication is an area of interdisciplinary knowledge characterized by an still insufficient epistemological legitimacy, with a marked absence of reflections and theoretical proposals within the same field, and that its intellectual structure is divided into two well-defined sub-disciplines: Interpersonal Communication and Mass Communication, which are crossed transversely by the New Technologies.

Keywords: scientific field of communication; citation analysis; author cocitation analysis (ACA); documents cocitation analysis (DCA), journal cocitation analysis (JCA), intellectual structure.

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1. Introduction

The theoretical reflections developed in a field of knowledge as a formative part of the processes inherent to its construction, become critical success factor to achieve its ideal consolidation and legitimacy. In this sense, the evaluation of the scientific activity generated in the different areas of knowledge has increasingly become more and more latent since the application of mathematical methods and procedures.

Methods based on library-science-informetric indicators are widely employed because they are based on the analysis of bibliographic databases that allow the quantification of large volumes of scientific publications in any area of knowledge.

The information emanating from these studies, supported by the use of innovative visualization techniques, contributes among other things to an ideal decision-making process in pro of achieving a better distribution of resources for research in institutions, the promotion of new scientific policies and, to some extent, to determine the theoretical and epistemological status of a field of knowledge.

The authors of different scientific fields come to play a decisive role since they constitute and construct part of the discourse of those fields. According to Vargas (2005), authors are responsible for their past, their interests, and the relationships and interactions between domains of knowledge. And all this happens through their language, i.e. through references or citations of their work. Therefore, the discourse of the community, in which the domain is gestated, is provided by the exchange of viewpoints between the authors that constitute that community, which is a reflection of the social and labour divisions of society.

From this perspective the analysis of the intellectual structure of the different domains of knowledge acquires great relevance. Likewise, from this line of thought cocitation analysis plays a basic role since in the scientific literature, and particularly its referential aspect, are adopted as setter and reflection of the patterns of behaviour of the disciplinary community, and thus its purpose is to show that literature is cohesive and changes intelligibly over time if it is defined in terms of articles, authors and journals and their cognitive and social co-relations in independent time intervals.

The combination in one of these three entities as objects of study allow us to classify cocitation analyses into: Cocitation Analysis of cited Authors, Cocitation Analysis of cited Documents, and Cocitation Analysis of cited Journals.

The studies related to Authors Cocitation Analysis (ACA) were introduced by White & Griffith in 1981 but they remain current even today. They consist of the collection of a set of analytical data, with which the help of graphical representation techniques can produce empirical maps of prominent authors in any given area of knowledge. By

examining the distribution of authors and the groups that establish them in a second or third dimension in the intellectual space it is possible to describe other structural aspects. The grouping of authors in clusters can identify subject areas, schools of thought, research lines, shared intellectual styles, as well as temporal and geographical links between the actors. By analyzing a number of factors is possible to demonstrate the concentration and breadth of the academic contributions of the various authors (McCain, 1990).

According to White & McCain (1998), these studies help identify influential authors of a given discipline and position their relations from the quotes they receive. ACA is the subcategory that maps the work and by implication those who produce it. The raw data is counted as often as pairs of authors are cited together, regardless of which of their works are cited. It displays the path of a field, not only the way it looks today but also the way it will look tomorrow.

On the other hand, the analysis of the social networks of Journals Cocitation Analysis (JCA) have reported the existence of highly interconnected magazines that represent sub-disciplines [Rice, Borgman, & Reeves, 1988 cited by McCain, 1990] and have demonstrated the "structural equivalence" of the journals with similar patterns giving and/or receiving quotes (Doreian, 1985, 1988, Rice, Borgman, & Reeves, 1988 cited by McCain, 1990). These studies reveal related themes, research specialties, as well as important academic dimensions.

The field of communication, polysemic and interdisciplinary since its genesis, is not immune to this particularity. JCA studies have been highlighted the state of several publications. This is the case of a recent study by Colle (2009) in which recovering keywords and the titles of the articles published, he analyzed the thematic and the evolution of the Latino Journal of Social Communication. Other works (Leydesdorff & Probst, 2009; Park & Leydesdorff, 2009) have been in charge of mapping and delineating the interdisciplinary nature of the communication field based on the identification of the link existing among the different knowledge structures, all this with the assistance of citation analysis techniques and social network analysis.

However, there are not previous studies known to have examined the intellectual structure of the field based on cocitation studies and such statement is based on the grounds that, according to Martínez (2009), this field of knowledge demands an analysis of the internal structure of the scientific community which includes the addressing of crucial issues to understand researchers' scientific production as well as the origins, training or epistemological connections. The study of the internal structure of a scientific community breaks any illusion that this is a sort of homogeneous cluster of researchers, and reveals the existence, within that community, of specific sectors or groups that share certain basic epistemic attitudes, which points in a similar direction: particular ways to guide the production of knowledge about a particular object (the media, in this case).

Based on the elements previously exposed, the present article aims to explore the intellectual structure of the scientific field of communication departing from the identification of the most influential authors, documents and journals in the field, and the representation and interpretation of cocitation (of authors, documents and magazines), based on the analysis of the scientific production referred to in mainstream journals in the period 2000-2007, with the assistance of analysis techniques of social networks for visualization.

2. Methodology

The primary source of information was the database Social Sciences Citation Index (SSCI) available on the Web of Science (WOS), an online service offered by the Institute for Scientific Information (ISI), now called Thomson Reuters and based in Philadelphia, USA. It covers more than 8 000 mainstream serial titles, classified as basic channels of information for the international scientific community, thus demonstrating a high degree of influence and importance worldwide. The SSCI rapidly provides a powerful access to bibliographic and citation information necessary to undertake trend studies, of journals and researchers, as it covers information of about 50 disciplines of Social Sciences [1]

Despite the known biases of these databases with regard to the social sciences, they were eventually taken as an object of analysis based on the assumption that from 2004, with the emergence of new alternatives that seek to expand coverage and representation of these sciences, there has been an opening in favour of this field as a competitive strategy of Thompson Reuters. To confirm this level of openness later we will undertake comparative studies with respect to the database SCOPUS, de Elsevier and Google Scholar, which were designed from its genesis with wider documentary coverage particularly with regard to the Social Sciences. Several comparative studies have been conducted using these bases as the object of analysis (Jacso, 2004, Laguardia, 2005; Deis & Goodman, 2005; Burnham, 2006, Moya et. al 2007), however further investigations are necessary to analyze specifically the approach of the Social Sciences and within these the Science of Communication. In this regard, highly relevant aspects could be examined based on the analysis of other regional alternatives. This is the case of Social Sciences Journals evaluation project undertaken by the Research Group EC3 at the University of Granada. This project named IN-RECS has been gaining strength because it is essentially based on the calculation of impact indicators in the same way Thompson Reuters analyzes and evaluates the Spanish journals in this field of science.

The identification of the word "Communication" was used as a search strategy in the fields Title, Abstracts, and Keywords, limiting the search to the subject category "Communication" of the SSCI, and the period comprised between 2000-2007. During the period 1st January 2000 to 31st December 2007 a total of 3362 documents were recovered. The recovered documents were downloaded directly into a database created with the bibliographic references manager application EndNote® x.2, also developed by Thomson Reuters, in order to subsequently proceed to the corresponding normalization of the fields to analyze in the study. The software Bibexcel (Olle Persson, Umeå University, Sweden) was used to do the frequency counts of citations and also to generate the matrix of cocitation (authors, documents and journals). The matrices previously generated with the programme Bibexcel were used for the approach to intellectual

structure from the perspective of social network analysis; they were processed with UCINET 6.123; and their reticular representation was achieved with the software NetDraw 2.38.

3. Examining the intellectual structure of the scientific field of Communication: Results

Before the examination and characterization of the intellectual basis of the field that concerns us, it is necessary to provide, even if brief, an analysis that somehow identifies the most influential authors, documents and journals in the field in the period under review and based on the selected source.

In this regard, a study into the references of the work of researchers in the field of communication made it possible to identify a set of authors, documents and magazines that resulted the most cited of the sample, thus being the most consulted to perform scientific-investigative activity in the area under study.

Figure 1. Most cited authors (quotations ≥ 100)

Authors	N. Signatures	N. Citations	Authors	N. Signatures	N. Citations
Cohen J.	2	184	Berger CR	1	132
Goffman E.	1	181	Burgoon JK	1	129
Walther JB	1	161	Chaffee SH	1	125
Bandura A	1	156	Petty RE	1	121
Rogers EM	1	153	Giddens A.	1	115
Habermas J.	1	149	Katz E.	1	106
Rice RE	1	142	Baxter LA	1	103
McLeod JM	1	138			

As it can be noted, Jacob Cohen is the most cited author in the field of study and according to the source analyzed. This author, professor emeritus of psychology at the University of New York, is a reference figure in the Behavioural Sciences. His articles and books are frequently cited due to their relevance acquired in the exhaustive analysis of the statistical methods used for data processing in psychological research. His major publications include the texts "Statistical Power Analysis for the Behavioural Sciences" (1988) and "Applied Multiple Repression/Correlation Analysis for the Behavioural Sciences" (1983). Both publications, best sellers of the publisher Lawrence Erlbaum, are seminal works of applied statistics for the Behavioural Sciences, which constitute the guide and basis that supply the tools necessary to conduct more effective studies in this field.

By analyzing the rest of the most cited authors in the field of communication it is possible to affirm that overall researchers in the field tend to consult more frequently classical authors, primarily theoretical representatives of different schools of thought, belonging to the fields of Psychology, Sociology, Philosophy and Communication Sciences. Authors' citational behaviour corroborates the interdisciplinary nature of the scientific field of Communication.

Based on the identification of the most influential documents in the area analyzed, it can be asserted that, as the following chart shows, a set of protagonist documents stand out.

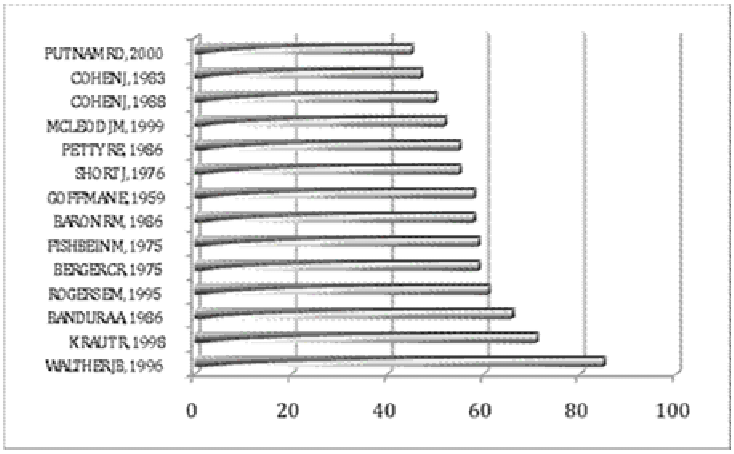

Figure 2. Most cited documents (citations ≥ 45)

As it can be noted, the document corresponding to Joseph B. Walter (1996) turns out to be the most cited with a total of 85 citations. This document is an article published in the journal Communication Research, Vol 23, No. 1, entitled "Computer-Mediated Communication Impersonal, Interpersonal, and Hyperpersonal Interaction". In this work the author alludes to the fact of how research and the use of computer-mediated communication proliferate rapidly and addresses research trends in this area throughout history. The main contribution of this study is that, by recognizing that impersonal communication sometimes becomes an advantage, the author suggests strategies for an intentional

depersonalization of media use with its different implications. In this sense, the author presents a new perspective on "hyperpersonal communication" before acknowledging that the media sometimes facilitate and exceed interpersonal communication at normal levels. Then he discusses the sub-processes that in computer-mediated communication can increase the impressions and interpersonal relationships, thus addressing the receivers, transmitters, channels, and elements of the feedback.

Generally, in this section is possible to say that most of the publications identified as the most cited in the area analyzed are books that could be classified as obsolete by their dates of publication but do not really classify here because they become classics of literature in the area analyzed. These works are under the authorship of the authors identified as of most impact and influence within the specialty, which shows consistency in this regard. It is valid to further point out that most of the publications come from other fields (Psychology, Sociology, Philosophy, Political Science), and not exactly from the field of communication, which confirms once more the assertion that studies in this area tend to use conceptual platforms from other fields (Berger, 1991; Boure, 2006; Reeves & Borgman, 1983; Rice et al., 1988; So, 1988 cited by Leydessdorff & Probst, 2009). This behaviour comes to speak of the absence of theoretical bases that are solid and characteristic of the field of Communication.

On the other hand, the situation of the journals cited in this field are as shown in the table below:

Figure 3. Most cited journals (quotations ≥ 200)

Titles of Journals	N. Citations	Titles of Journals	N. Citations
Journal of Social & Personal Rel.	1052	Public Opinion Quarterly	266
Journal of Communication	612	Augment & Alternative Comm.	261
Communication Research	484	Quarterly Journal of Speech	244
Communication Monographs	431	Public Relations Review	237
Journalism & Mass Comm. Q.	405	Journal of Advertising	230
Technical Communication	390	Soc. Science & Medicine	220
Human Comm. Research	352	Management Comm. Q.	214
Psychological Bulletin	294	American Journal of Pub. H.	206
Journal of Broadc. & Elect. Media	288	Comm. Education	200
Journal of Consumer Res.	279		

The most cited journal in the sample in the period 2000-2007 and thus the most used by the authors to conduct their contributions was the Journal of Social and Personal Relationships. This publication is sponsored by the International Association for Relationship Research and published by Sage Publications, USA. This journal publishes original articles of the highest quality related to empirical and theoretical work on social and personal relationships. It is the insignia journal on the field mainly because it has a strong multidisciplinary orientation with emphasis on the disciplines of Social, General, Clinical and Development Psychology, although it also provides a large number of investigations conducted from the perspectives of Communication and Sociology, among other approaches.

Overall in this section, USA publications lead the list of most consulted sources within mainstream communication as most of the publications come from this country except for one (Communication Monographs) that comes from the United Kingdom. The journals identified as the most cited and hence of highest utility level in the field of communication in the period under review, are not exactly in all cases the most productive, and much less the core of the discipline but their level of specialization and multi-topic character makes them obliged reference sources at the time of encouraging research in this area. It is valid to note that when analyzing the editorial profile of the group of journals identified as most cited it is possible to corroborate once again the interdisciplinary nature of Communication as a scientific field.

3. 1. Authors Cocitation

The network presented below shows the behaviour of the cocitation of authors in the field of Communication based on the scientific production represented in the WOS in the period under review.

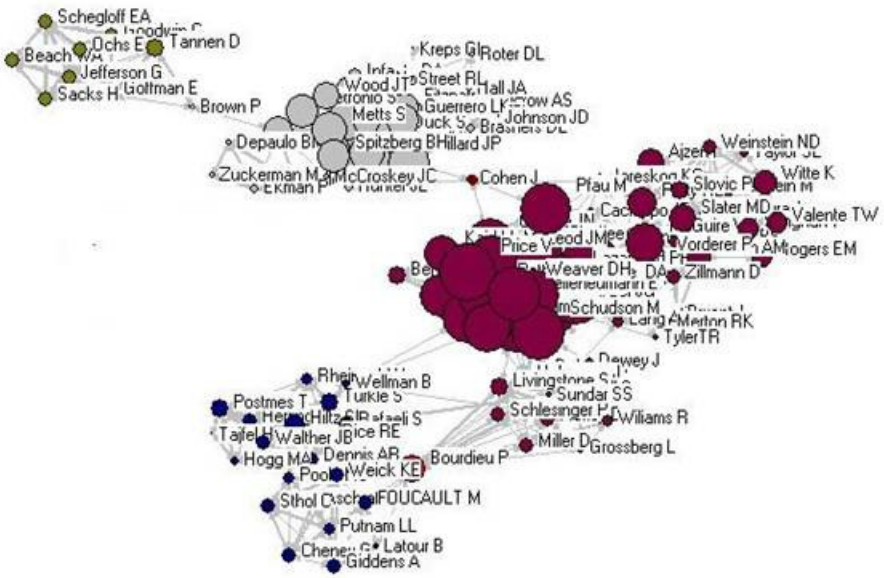

Figure 4. Network of Authors cocitation (ACA)

The previous figure shows 4 well-defined clusters. The area of greatest action in the cocitation network is the one red cluster, which in turn comprises the most senior and therefore highly co-cited authors; followed by those that are located in the gray cluster.

In the red cluster are located next to other authors, those identified in previous paragraphs as those of greater impact and influence in the field of communication. The actors in this cluster -doctors, professors mainly from American universities, psychologists, journalists, sociologists, philosophers and historians of education- express intense cocitation relationships among themselves because they all are classical and purely theoretical authors, responsible for theories that underpin for studies of attitude, persuasion, human behaviour, public culture, public opinion, political communication, mass communication, the effects of the media, journalism, and gender politics. Authors that stand out are Icek Ajzen, Michael W. Pfau, Michael Schudson, Pippa Norris, Vincent Price, Peter Vorderer.

On the other hand, the authors concentrated in the gray cluster, also prominent authors, doctors and university professors, psychologists, linguists and trained communicators; are closely co-cited for being responsible for seminal works in the area of interpersonal, nonverbal, intercultural, rhetoric, and health communication, communication processes in marriage and family, emotions, persuasion and privacy management in communication. Authors that stand out include James P. Dillard, Laura K. Guerrero, James C. McCroskey, Brian H. Spitzberg, Mary Anne Fitzpatrick, David Johnson, and Sandra Petronio, among others.

The blue cluster on the bottom right of the network contains one set of authors who are influential in the field but are co-cited to a lesser extent. Sociologists, psychologists and journalists stand out. Co-citation relationships among these authors are given in the basis that they address issues related to technology and society, with special emphasis on the social impact of computer-mediated communication, organizational and group processes management, the approach of communication networks in the brand new technological environment, collective action and social identity. In this cluster stand out some classical authors, providers of essential theories to address these phenomena, like Michel Foucault, Anthony Giddens and Karl E. Weick. Other authors that stand out are Starr R. Hiltz, Tom Postmes, Cynthia Sthol and Joseph B. Walther.

Note that the node that represents the author Pierre Bourdieu exhibits a significant degree of intermediation. This node is able to connect itself to the main cluster of the network previously described. This behaviour is reflected in the fact that there is a close relationship between the issues addressed by the authors of both clusters, but the approach differs: the issues address in the first cluster respond to traditional environment and the ones from the second cluster depart from classical and traditional theories to approach new knowledge spaces emerged in the field, influenced mainly by the influx of new information and communication technologies.

In the light green cluster, located in the upper left corner of the net, one can view a very relevant group of authors mostly sociologists and linguists influenced by the ethno-methodological tradition. They deal with issues related to social linguistics, discursive psychology, conversation analysis and sociological studies of interaction. It is valid to note

that the main actors in this cluster are co-authors of important publications in this area. Outstanding authors are Harvey Sacks, Gail Jefferson and Emanuel A. Schegloff.

By way of closing this section it is necessary to point out that the intellectual structure of the communication field from this point of view, is divided into two well-defined subfields, interpersonal communication and mass communication, transversally crossed by new technologies. This disciplinary intellectual base is formed mainly by actors from different spheres of action related in some way with their object of study; with which the approaches to this area from the practice of psychology, sociology, philosophy and linguistics are increasingly on the rise. Most of those actors approaching the area are American academics, theorists, representatives of different schools of thought (cognitivism, constructivism, hermeneutics, among others) and communication scholars that also approach it from different angles; considering it as a scientific discipline and as a field of professional action in the most diverse spaces. These authors are major exponents of the contextualism in the Social Sciences in general and in particular in communication field since the focus in addressing, among other issues, the individual in its cultural and temporal environment.

3. 2. Documents Cocitation

The figure below shows the behaviour of documents cocitation in the filed of communication. There is a network divided into three main parts, and to the centre (delimited in blue and gray) there is a macro cluster exponent of the greater centrality in the entire network. The larger nodes correspond to the documents identified as the most cited in the sample, thus being the most influential, with a high level of interrelation and thematic similarity among them. Nodes are located with a high degree of intermediation (Richard R. Lazarus [1991] and Everett M. Rogers [1983]) and are capable of connecting major groups within the network and being viewed from different angles.

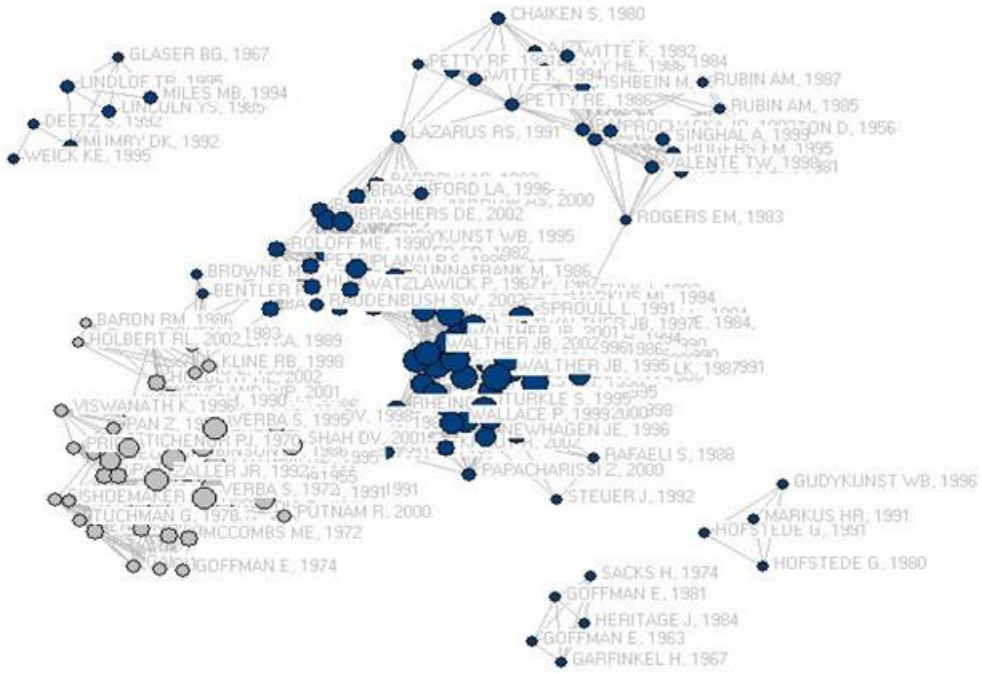

Figure 5. Network of documents cocitation (DCA)

In the central cluster the documents that show a greater degree centrality are the documents under the authorship of Joseph B. Walter (1992, 1995, 1996, 2001) and Robert E. Kraut (1998), which address the use of the Internet theory in human relationships (personal and professional). Although some others are also exhibited, in the sub-cluster defined with gray the works of Dietram A. Scheufele and Dhavan V. Shah stand out. They are very contemporary authors consulted on issues of Political Communication.

The works with more centrality of intermediation respond to classical literature, the first contains the so-called cognitive evaluation theory (Lazarus, 1991) and the second contains theories related to studies of diffusion of innovation. These nodes in turn are closely related to those concentrated in the top of the central cluster, where the work of Richard E. Petty (1981,1986), on persuasion and social influence (of the media), stand out.

In the lower right there are two small clusters in which the works that stand out are the work of Erving Goffman (1963, 1981) related to human behaviour in public spaces and forms of speech, and those of Geert Hofstede (1980, 1991) on comparative intercultural research.

This behaviour is in complete correspondence with the behaviour detected in previous sections. The most cited documents coincide with the most influential authors and the themes most explored from different particular perspectives, which speak of the existence of a particular set of authors, documents and journals that, as it will be

discussed in the next section, usually are employed to support or justify positions, thoughts, and approaches taken in the development of research work in this scientific domain.

3. 3. Journals Cocitation

This section deals with the behaviour of the journals identified in the sample as belonging to the field of communication. A look at the cocitation network allow us to distinguish the group of journals in 5 major clusters that appear to respond to the disciplines associated with the sources analyzed.

In this sense, in the centre there is the main cluster formed by the journals that are the most central (as evidenced by the size of the nodes), and the most prestigious and influential in the field, and the ones manifesting closer cocitation relations among them.

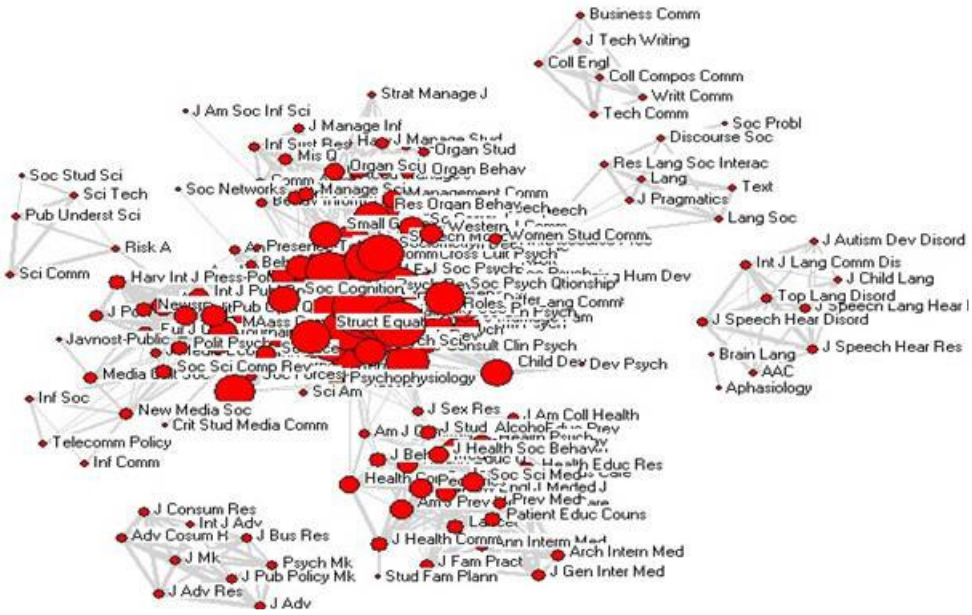

Figure 6. Network of Journals Cocitation (JCA)

This cluster contains journals that are more responsive to the profile of Psychology (General and Social) and Communication Research, but less responsive to the Information Sciences and Political Science. This behaviour corroborates the fact that, particularly in the United States, the greatest intellectual force in the communication field comes primarily from Psychology, particularly evident in the impact of the psychology journals in the area of communication. This influence of psychology is wide and these sources are recognized as major in the production of theories and methods by the authors who publish in journals of communication [Leydesdorff & Park, 2009]. This cluster also contains magazines that correspond to new specialties promoted as a result of the continuous technological development. These include: telecommunications, computer-mediated communication, computing and human-computer interaction.

The clusters in the periphery contain magazines related to Marketing and Advertising, Health and Communication as well as Sociological Studies and Language. Once again this proves that the boundaries of the field of communication remain unclear (Leydesdorff & Probst, 2009), and on this basis it could even be argued that this is a phenomenon with a high level of transversality and a very marked interdisciplinary character.

4. Conclusions

The evaluation of research, as an institutionalized practice today in several countries, is presented as one of the most effective tools for the design and establishment of science policies, both nationally and internationally. Its application in the field of Social Sciences, within them the field of Communication, has become an increasingly attractive area beyond the criticisms in the scientific community about the adequacy of the primary sources traditionally used for obtaining data under study. In this sense, the evaluation of research also plays a key role in addressing the structure of the theoretical and epistemological foundations underlying the different fields of knowledge, including communication.

In order to obtain an overview of the disciplinary basis we identified a total of 15 authors considered the most influential in the communication field according to the source consulted. All authors are exponents of various schools of thought and are regarded as the most cited in the field because they received 100 or more citations in the period under review. The author of more impact turned out to be Jacob Cohen (181); classic reference figure in the Behavioural Sciences due to his contributions about the application of statistical methods for the treatment of research data in this field. Authors of obliged consultation in the field include Junger Habermas (149), Michel Foucault (79) and Pierre Bourdieu (73) as well as contemporary authors who are gaining influence in the field: Dietram A. Scheufele (87), Joseph N.

Cappella (86), William P. Eveland (85) and Dhavan V. Shah (78).

The documents identified as most cited are classic works of the scientific literature, largely originated in Psychology, Sociology, Philosophy and the Political Sciences. They are under the authorship of the authors of major impact and influence within the specialty.

The journals identified as the most cited and hence of most utility in the field of communication are mostly American with a high level of expertise and multi-topic nature.

The author cocitation analysis (ACA) showed that the intellectual structure of the filed of communication, from this point of view, is divided into two well-defined subfields: interpersonal communication and mass communication, which are transversally crossed by new technologies. The field of communication is mostly formed by American academics, theorists, representatives of different schools of thought and communication scholars offering different approaches; all of whom considered it as a scientific discipline and a field of professional activity.

The DCA showed a total correspondence with the behaviour found in the ACA and JCA. The most cited documents coincide with the most influential authors and the research themes most investigated from different perspectives, which speaks of the existence of a particular set of authors, documents and journals that are usually employed to support or justify positions, reflections and criteria used in the development of research work in the scientific field of communication.
The network of JCA showed that the most related publications correspond to those identified as the most influential of the field. They meet the profile of (General and Social Development) Psychology, Communication Research, Information Sciences and Political Science. There is group associated with specialties encouraged by the increasing technological development, namely, Telecommunications, Computer-Mediated Communication (CMC), Computing, and Human-Computer Interaction (HCI). In peripheral positions were detected publications belonging to the areas of Marketing and Advertising, Health Communication, as well as Sociological and Language Studies.

The examination of the intellectual structure confirms that the field of communication is a space of interdisciplinary knowledge characterized by an epistemological legitimacy still insufficient, with a marked absence of reflections and theoretical proposals originated by the same field, an exhibiting a division of its intellectual disciplinary basis in two well-defined sub-disciplines: Interpersonal Communication and Mass Communication, crossed transversely by the New Technologies.

5. Notes

[1] The access to the database was possible through the portal of the electronic library of the University of Granada because the present article is the result of the research undertaken as part of the Ph.D. programme in Scientific Documentation and Information jointly coordinated with the University of La Havana.

6. References

Burnham, J. (2006). "Scopus database: A review." retrieved on 17 March 2009, from http://www.bio-diglib.com/content/3/1/1.

Colle, Raymond (2009): La temática de *Revista Latina de Comunicación Social,* 1998-2008 (The themes of the *Revista Latina de Comunicación Social,* 1998-2008). *Revista Latina de Comunicación Social*, 64, pp. 71 to 85. La Laguna (Tenerife): University of La Laguna, retrieved on 26 October, 2009, from:
http://www.revistalatinacs.org/09/art/07_806_13_revista/Raymond_Colle.html
DOI: 10.4185/RLCS-64-2009-806-71-85

Deis, L. and D. Goodman (2005). "Web of Science (2004 version) and Scopus." Retrieved on 17 March 2009, from: http://www.charlestonco.com/comp.cfm?id=43. DOI: 10.4185/RLCS-64-2009-800-01-144.

Jacso, P. (2004). "Péter's Digital Reference Shelf. Scopus." Retrieved on 24 November 2008, from http://www.galegroup.com/reference/archive/200409/scopus.html

LaGuardia, C. (2005). "E-Views and Reviews: Scopus vs Web of Science." Retrieved on 23 November 2008, from: http://www.libraryjournal.com/article/CA491154.html

Leydesdorff, L. and C. Probst (2009). The Delineation of an Interdisciplinary Specialty in terms of a Journal Set: The Case of Communication Studies. Journal of the American Society for Information Science & Technology (forthcoming).

Martínez Nicolás, Manuel (2009): "La investigación sobre comunicación en España. Evolución histórica y retos actuales" (Communication Research in Spain. Historical evolution and current challenges). *Revista Latina de Comunicación Social*, 64, pp. 1 to 14. La Laguna (Tenerife): University of La Laguna, retrieved on 26 October, 2009, from: http://www.revistalatinacs.org/09/art/01_800_01_investigacion/Manuel_Martinez_Nicolas.html

McCain, K. W. (1990). "Mapping Economics through the Journal Literature: An Experiment in Journal Cocitation Analysis." Journal of the American Society for Information Science 42(4): 290-296.

Moya-Anegón, F. et al. (2007). "Coverage analysis of Scopus: A journal metric approach." Scientometrics 73(1): 53-78.

Park, H. W. and L. Leydesdorff (2009). Korean journals in the Science Citation Index: What Do They reveal about the intellectual structure of S&T in Korea? Scientometrics 75(3): 439-462.

Vargas Quesada, B. (2005). Visualización y Análisis de Dominios Científicos mediante redes pathfinder (PFNET) (Visualization and Analysis of Scientific Domains using pathfinder networks (PFNET)). Biblioteconomía y Documentación. Granada, Spain, University of Granada. Ph.D. Thesis.

White, H. and K. McCain (1998). "Visualizing a Discipline: An Author Co-Citation: Analysis of Information Science, 1972-1995." Journal of the American Society for Information Science 49(4): 327-355.

White, H. D. and B. C. Griffith (1981). "Author co-citation: a literature measure of intellectual structure." Journal of the American Society for Information Science 32(3): 163-171.

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