

**Exploratory study for the systematization of researches on transparency and the internet**

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**ABSTRACT** The objective of this paper is to conduct an exploratory survey on studies approaching transparency and the internet as well as the several dimensions involved in this field. The study was based on bibliographical survey, analysis and categorization of a sample containing 159 papers published in international academic journals or presented in scientific events that investigate the experiences of transparency, e-government openness, open government, publicity or accountability, related to the digital scope. Finally, we seek to design a procedure and patterns of investigation for international studies related to transparency and the internet as well as to point out the existing gaps in the literature.

**Keywords:** Transparency; Internet; International survey; Exploratory survey.

## **1 Introduction**

It has become relevant to map the researches developed worldwide towards themes of transparency and the internet if we consider the increasing attention of scholars, managers and researchers in the fields of communication, public administration and political science to such matters. In this context, the major

objective of this paper is to conduct an exploratory survey of researches approaching transparency and the internet as well as the several dimensions involved in this field.

This study was carried out based on bibliographical survey, analysis and categorization of a sample containing 159 papers published in international academic journals or presented in scientific events that investigate experiences of transparency, e-government, openness, open government, publicity or accountability, related to the digital scope.

The research problem is centered in finding a plan and patterns of investigation for international studies related to transparency and the internet. Therefore, we intend to obtain support from the analysis of the collected material for researchers of the fields of interest to establish research agendas, identify patterns of investigation, and point out the existing gaps in the literature.

In order to support the analysis, we proposed a method that enables the following items: 1) categorization of the 159 studies for an improved systematization and understanding of the collected information, and 2) data cross-checking to allow the design of an overview on the international research agenda for transparency and the internet. In the section Methodology, all of the aspects considered for the mapping will be detailed as well as the period of analysis, adopted delimitations, and the categories defined for the analysis of the papers.

## **2. Transparency and the internet**

Throughout the last decades, researches on the field of democracy and the internet have dedicated to the systematization of investigations on specific topics such as *e-participation*, *e-petition*, or the political use of online social networks) in order to organize the knowledge on the area and benefit the development of further researches on *e-democracy*.

An example is a study by Sanford & Rose (2007) consisting in mapping a research on *e-participation* based on the identification of 99 papers considered essential regarding the matter. In 2008, Sæbø *et al* (2008) categorized 131 papers on *e-participation* published until 2006. Medaglia, in 2011, analyzed 123 papers on *e-participation* published between 2006 and 2011, continuing the study in 2012 by analyzing the directions of researches in the field of *e-participation* along the same period. In 2013, Muñoz, Bolívar & Sánchez conducted a critical evaluation of *e-*

government systematizing papers published in journals of Information Science and Public Administration.

In the Brazilian scenario, we emphasize the studies by Bragatto & Nicolás (2011), who mapped 71 papers on the internet and politics presented in four national meetings occurred between 2006 and 2010 based on thematic fields, objects of study, types of approach, methods, and research techniques; and Bragatto, Nicolás & Sampaio (2012) with the analysis of 299 papers presented in 11 Brazilian events on Sociology, Political Science and Communication. More recently, in 2014, Carreiro proposed a similar study, but taking as object of exploration the sphere of Facebook as a political space by analyzing 68 papers.

Regarding the field of *e*-transparency, we consider that despite the existence of large literature and consisting increase in publications in the area along the last decade (CHEVALLIER, 1988; BRAGA, 2007; FUNG, GRAHAM & WEIL, 2007; PIOTROWSKI & RYZIN, 2007; PINHO, 2008; SILVA, 2009; CRUZ, SILVA & SANTOS, 2009; HOFMAN, ALÚJAS & PEREZNIETO, 2012; AMORIM, 2012; AMORIM, GOMES, 2013; BAUME, 2013; MARQUES 2014; BAUHR & GRIMES, 2014), such volume is still not sufficiently expressive facing the ever increasing importance of researches on online transparency for academics and the society as a whole. The field is deficient in comprehensive surveys that propose to map research agenda as well as the variety of objects and investigation patters in order to consolidate the knowledge for further researches, reflect on the gaps and point out possible directions for other studies to come.

An investigative proposition of such magnitude is at the same time very promising and challenging. Among others, one of the most relevant facts is that *e*-transparency is at a conceptual crossroad of multidisciplinary – among Public Administration, Political Science, Communication, Business Management, and Computer Science – which makes any attempt to systematization an extensive task that may carry consequent gaps.

The relevance of this paper is based on the necessity of a larger view on the academic production regarding *e*-transparency dispersing the analysis of a specific object or initiative to design a perspective, understand the knowledge flows, realize gaps, and glimpse new possibilities of investigation.

### **3. Methodology**

The methodology was applied between September and October 2014 by observing the following directions: (1) delimitation of a theme to carry out the survey (transparency and the internet); after defining the object (2) search databases of international journals in the fields of Social Sciences, Public Administration, Communication, and Political Science; in addition to the authors' archive on the theme; (3) selection of studies that meet the established parameters; (4) analysis of papers based on the presented categories; (5) identification of relevant correlations (data cross-checking) to present the state of the art in the research on transparency and the internet.

After having defined the theme as transparency and the internet, we searched the databases of international journals (such as Journal Citation Reports [JCR]) for the papers to be categorized. In these platforms, we used 12 terms for the search, as follows: openness; open data/bigdata; open government; assessment of government portals; confidence in the government; fighting corruption; accountability; transparency versus privacy; bad transparency; social networks/social media; publicity; participation. Our decision on the terms was based on their larger repetition and comprehensiveness in the literature on online transparency. The authors also searched the themes on their own databases<sup>1</sup>.

After this initial survey, we sought to consider the papers whose object and/or objective is online transparency related to political actors or institutions, that is, *e*-transparency as an instrument for political activities that favor the citizen to monitor public affairs and political actors. Based on the established parameters, we reached a corpus of 159 papers, categorized considering the following aspects:

- a) **Authors:** names of the authors;
- b) **University country of origin:** name and country of origin of the institutions that the authors represent;
- c) **Title:** title of the paper;
- d) **Year:** year of publication/presentation of the paper.

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<sup>1</sup> The source of part of the our bibliographical references was the dissertation by Paula Karini Amorim, presented to the Graduation Program in Communication and Contemporary Culture of UFBA, 2012, entitled "Democracy and the Internet: transparency in the management of electronic portals of Brazilian capitals"; and the thesis by Maria Paula Almada, presented to the same program, in 2013, entitled "Political participation and online transparency: an overview on digital democracy in Brazil from public initiatives". The search for keywords was also carried out on the Portal of Journals of CAPES. This stage of the study was conducted between August 2014 and December 2014.

- e) **Means of publication:** identification of the scientific journal in which the paper was published or the event in which it was presented;
- f) **Field:** identification of the field of knowledge of the journal, with the options Sociology and Political Science; Communication; Public Administration; Science of Information/Computer Science; Multidisciplinary; Other (for themes not included in the above list), and Not apply (for papers presented in events);
- g) **Investigation pattern:** classification of the investigation as theoretical or empiric;
- h) **Studied country(ies) (object):** in case the investigation is empiric, the analyzed countries will be identified;
- i) **Theme of the paper:** identification of the theme(s) of the paper such as follows: Openness; Open Data/Bigdata; Open Government; Assessment of government portals; Confidence in the government; fighting corruption; Accountability; Transparency versus privacy; bad transparency; Social networks/Social Media; Publicity; Participation; and Others (remaining themes);
- j) **Form of publication:** identification of the form of publication of the paper (event proceedings or scientific journal);
- k) **Keywords:** identification of the keywords attributed by the authors of the paper<sup>2</sup>.

Subsequently, we carried out the statistical treatment of the collected information in order to describe the behavior of the variables chosen for this investigation as well as to identify the existence of relevant correlations for the overview of the studies in the field.

The aforementioned methodology was developed to allow a wide perspective on researches concerning transparency and the internet, identify existing gaps in the literature available on such themes, verify which concepts have been proposed and/or employed by researchers, and present the historical evolution of the studies in the field.

#### 4. Results and discussion

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<sup>2</sup>Data referent to letters **C** (article title), **E** (mean of publication, that is, identification, by name of the journal or event in which the paper was published/presented), and **K** (keywords considered in the paper) were used at the pre-analysis stage to select the papers that constituted the sample.

## 4.1 Categories of analysis

According to aforementioned, 159 papers were classified in seven categories. The following subtopics (and respective graphs) present the results of this characterization and analysis.

### 4.1.1 Authors

The analysis of the category “author” reveals that some of the names were highlighted due to the amount of studies produced. Meijer, A. J. (Netherlands) was the author with the highest amount of studies (six papers as the author and/or co-author followed by Berlot, J. and Jaeger, P. (United States of America), both with five papers. The remaining highlighted authors are described in table 1.

Table 1: Major authors identified

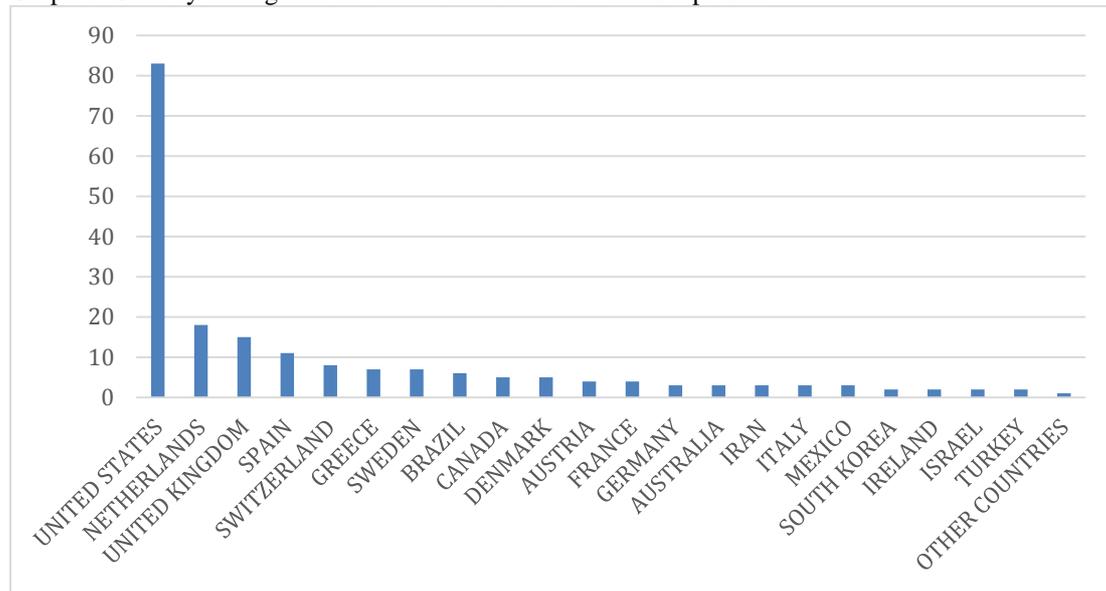
<b>Authors</b>	<b>Quantity</b>
Meijer, A. J.	6
Berlot, J.	5
Jaeger, P.	5
de Fine Licht, J.	4
Grimmelikhuijsen, S.	3
Hillebrandt, M.	3
Alt, J.	2
Donaldson, M.	2
Curtin, D.	2
Loukis, E.	2
Villeneuve, J-P.	2
Grimes, J.	2
Pina, V.	2
Torres, L.	2

Source: Survey conducted by the authors in September and October, 2014.

### 4.1.2 Country of origin of the university

According to graph 1, regarding the country where the researchers are carried out, the survey revealed that out of a list of 22 countries, most of the researches on transparency and the internet are conducted in the United States of America. With 83 (52.2%) of the papers published along the studied period, the country is followed by Netherlands, United Kingdom and Spain, with 18, 15 and 11 papers, respectively.

Graph 1: Country of origin of the institutions that the authors represent



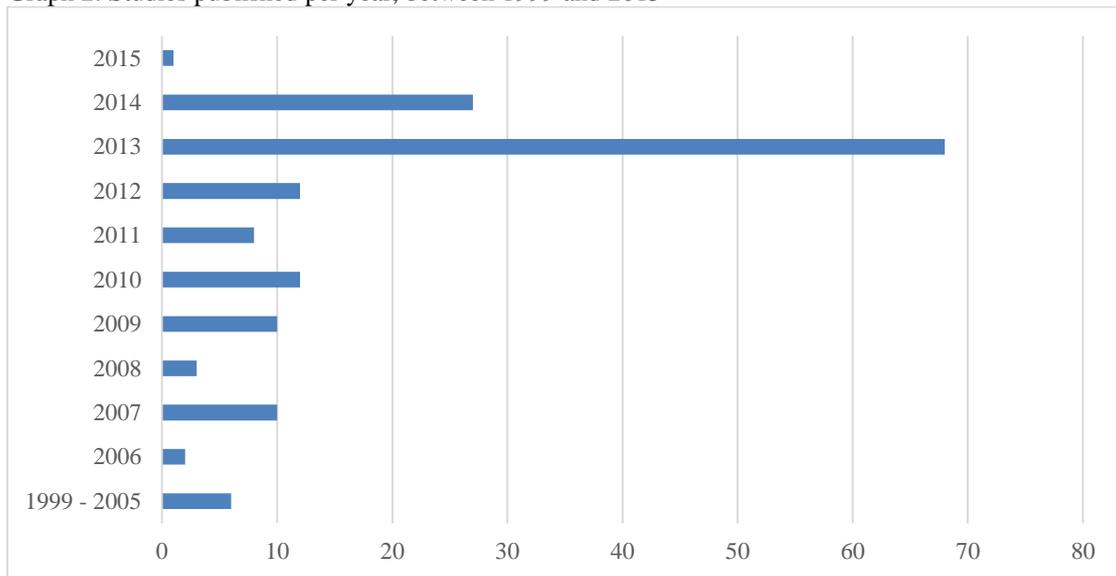
Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.3 Year of publication of the paper

The quantitative evolution of the scientific production on transparency and the internet between the years of 1999 and 2015<sup>3</sup> is illustrated on graph 2. According to the collected data, researches in the last decade have been substantially increasing, which corroborates the idea that in parallel with the advance of democratic quality worldwide, there is a tendency to also increase the demand for a transparency sufficiently concrete to be translated into openness, control and responsiveness from the government to the citizen.

<sup>3</sup>The low number of publications in the year of 2015 occurred because the period of collection had been in the late 2014. One of the analyzed articles had been approved in 2014 for publication in 2015.

Graph 2: Studies published per year, between 1999 and 2015

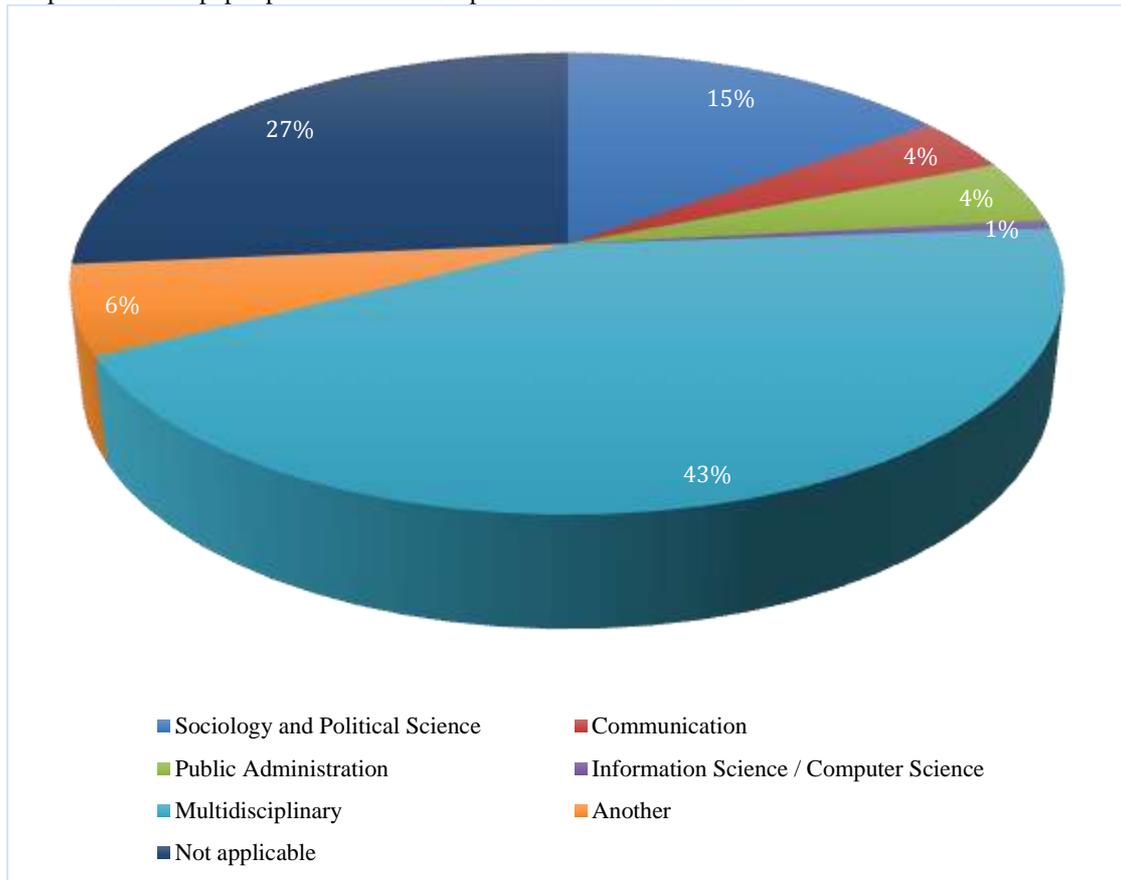


Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.4 Field of knowledge

Multidisciplinary journals prevail regarding the authors' editorial choices. However, the investigation did not allow us to establish the cause of this finding, which could be either the researchers' preference to submitting their studies to this type of publication or editors' better receptivity for the evident convergences among the fields of knowledge. Journals of the fields of Sociology and Political Science reached together 43% of the total studies produced in the area (Social Sciences) followed by those approaching public administration. Although transparency is directly associated with communicating information to the public and enable better analysis of public and political affairs, the field of Communication still lacks effort towards the theme, having represented only 4% of the sample. Graph 3 illustrates the detailed scientific production per field of knowledge.

Graph 3: Field of paper publication and respective amount of studies

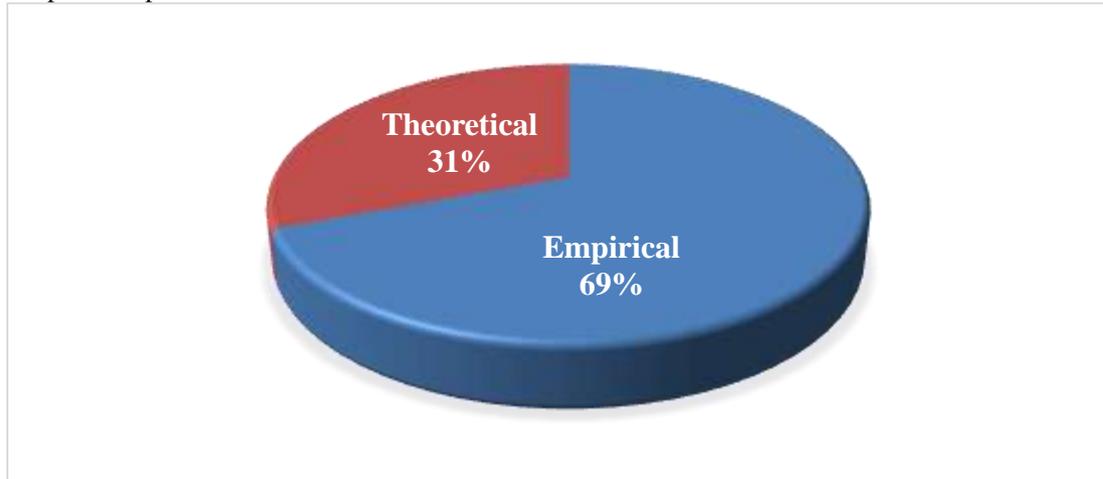


Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.5 Investigation pattern

The prevailing investigation pattern in the assessed corpus is related to empiric studies, numbering 69% of the 159 papers, against 31% of theoretical studies. One of the hypothesis for this finding is the fact that transparency and the internet are relatively new fields with concepts that are still undergoing development and consolidation.

Graph 4: Empiric studies versus theoretical studies

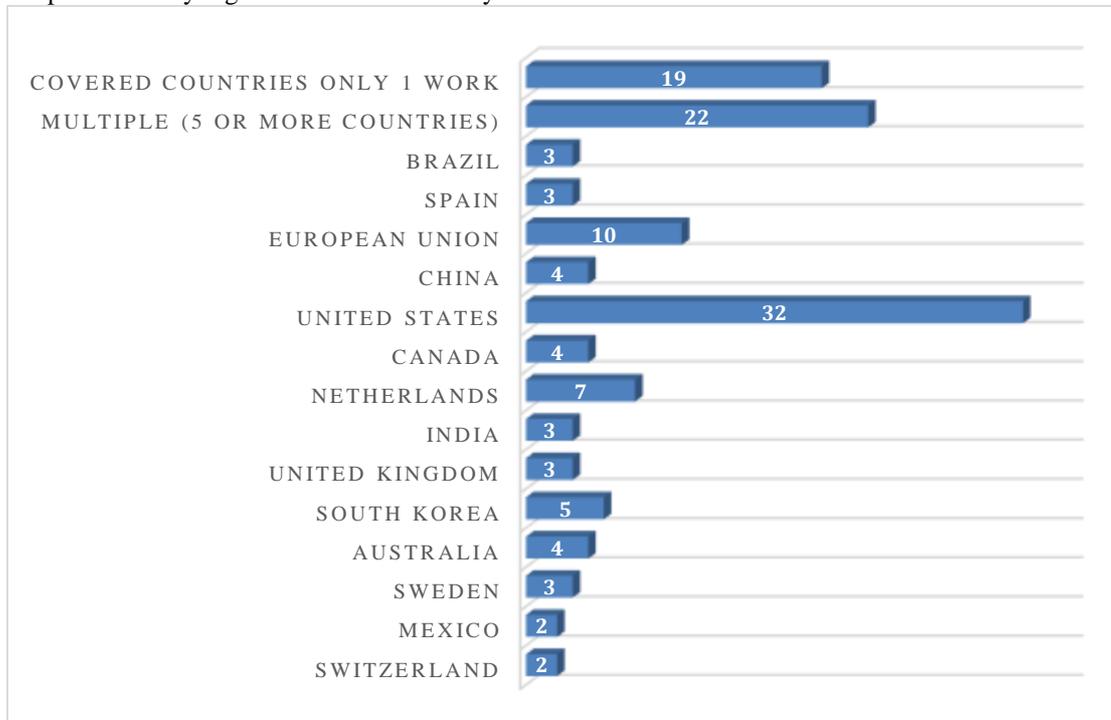


Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.6 Object of study

Regarding this category, out of the 110 empirical studies analyzed, 32 report experiences of *e*-transparency in the United States. We also observed a considerable amount of studies (22 papers) covering cases with five or more countries. In addition, we emphasize the amount of studies analyzing the European Union (ten papers), Netherlands (seven papers), and South Korea (five papers).

Graph 5: Country/region covered in the study

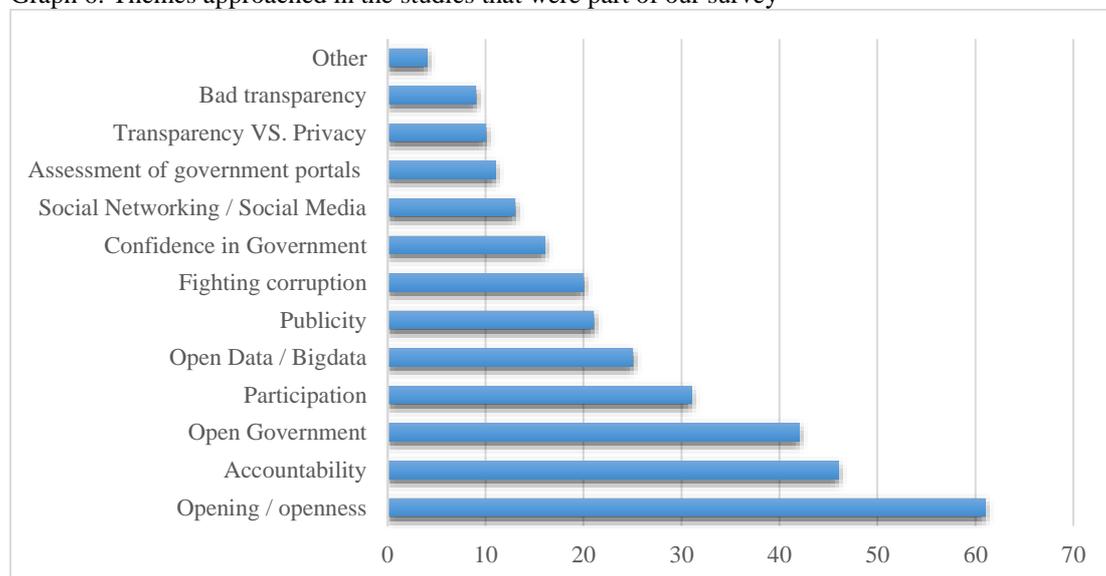


Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.7 Approached themes

The themes approached in the studies that form the sample were coded in 13 categories. Each item may receive more than one codification, and in a broader case, five themes were reported in a single study. According to graph 6, the priority of the research agenda is openness, present in 38% of the analyzed studies (61 papers), followed by accountability (46), open government (42), participation (31), open data/big Data (25), publicity (21), fighting corruption (20), confidence in the government (16), social networks (13), assessment of government portals (11), transparency x privacy (10), bad transparency (9), and others (4).

Graph 6: Themes approached in the studies that were part of our survey

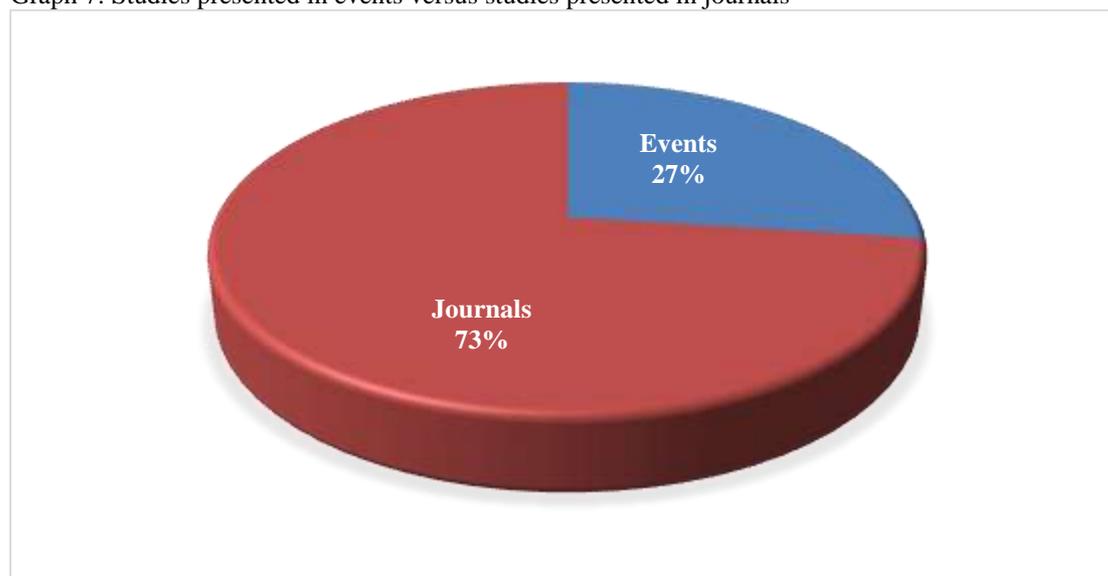


Source: Survey conducted by the authors in September and October, 2014.

#### 4.1.8 Form of publication

Graph 7 demonstrates the distribution of researches in papers published in journals and papers presented in academic events. The survey revealed the prevalence of papers published in specialized journals, responding to 73% of the sample against 27% of papers presented in scientific papers.

Graph 7: Studies presented in events versus studies presented in journals



Source: Survey conducted by the authors in September and October, 2014.

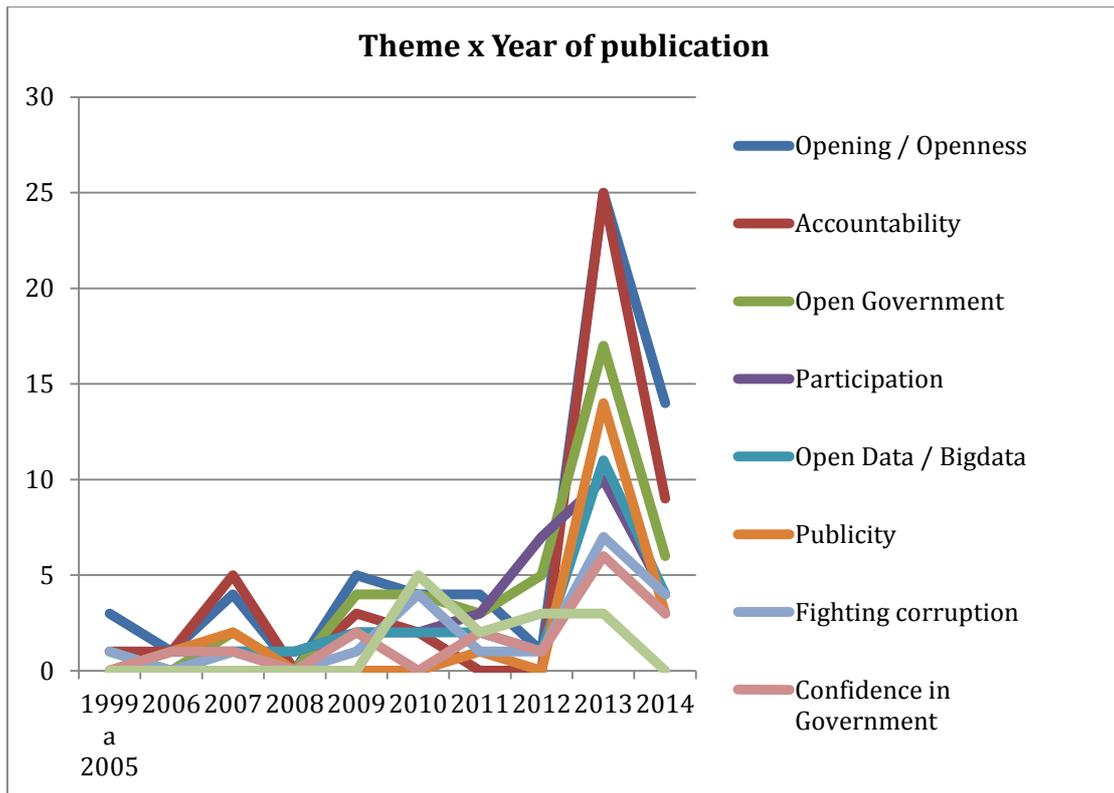
## 4.2 Comparative analysis of the results

We sought to establish a few comparisons between the results described in the previous section in order to reach a better understanding on the state of the research in the field of transparency and the internet.

### 4.2.1 Comparing theme and year of publication

The graph below indicates that the years of 2013 and 2014 concentrated most of the publications. Authors majorly approached themes “openness”, “accountability”, “open government”, “participation”, and “publicity”. Until 2012, we find a balance regarding both the themes and the amount. In 2013, it is observed a quantitative leap in the papers published on “openness” and “accountability. We believe that the interest in the theme along the period is associated with the foundation of the Open Government Partnership, in 2011, multiplying the initiatives of transparency among member countries and offering more investigative possibilities.

Graph 8: Comparing theme and year of publication

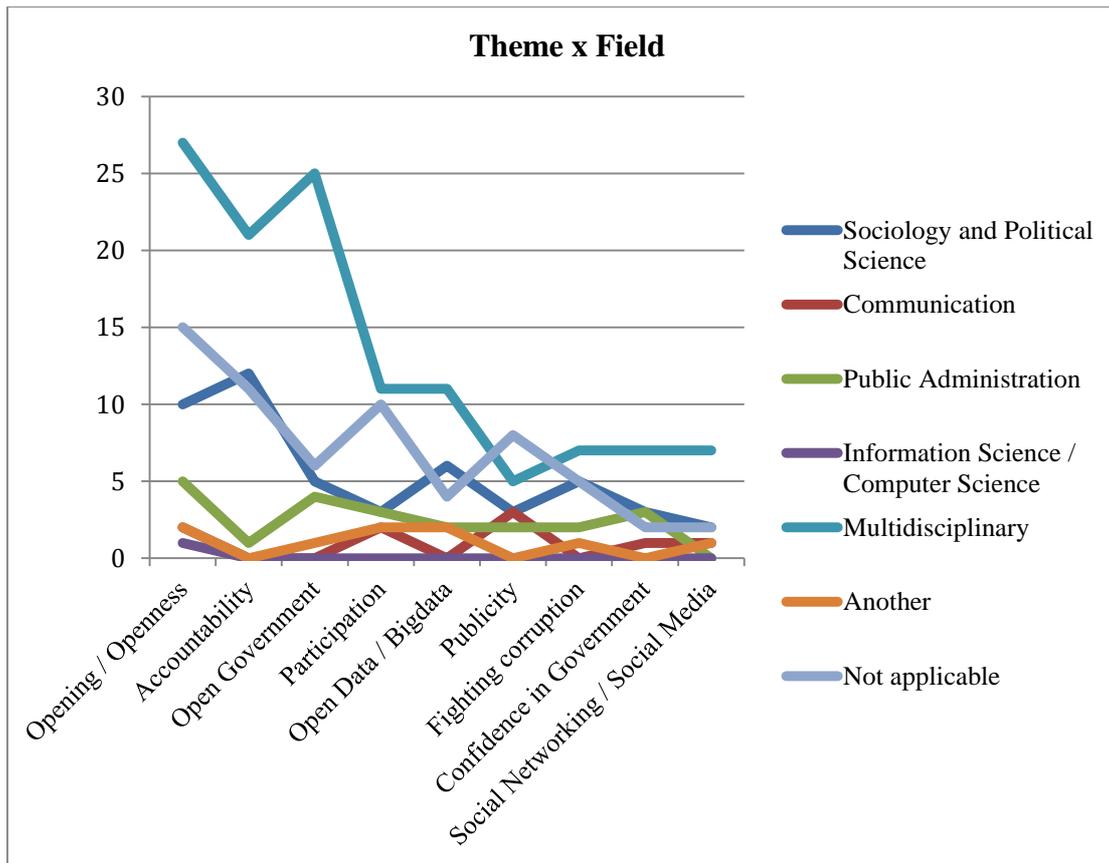


Source: Survey conducted by the authors in September and October, 2014.

#### 4.2.2 Comparing theme and field

The fields of Sociology and Political Science concentrate the major part of the publications related to themes openness, accountability, open government, participation, and open data/bigdata. Another evidence presented in the result of the comparison between theme and field is the significant amount of occurrences for the multidisciplinary area, which corroborates a tendency of studies developed by researchers from different fields towards the multifaceted character of the object transparency and the internet.

Graph 9: Comparing theme and field

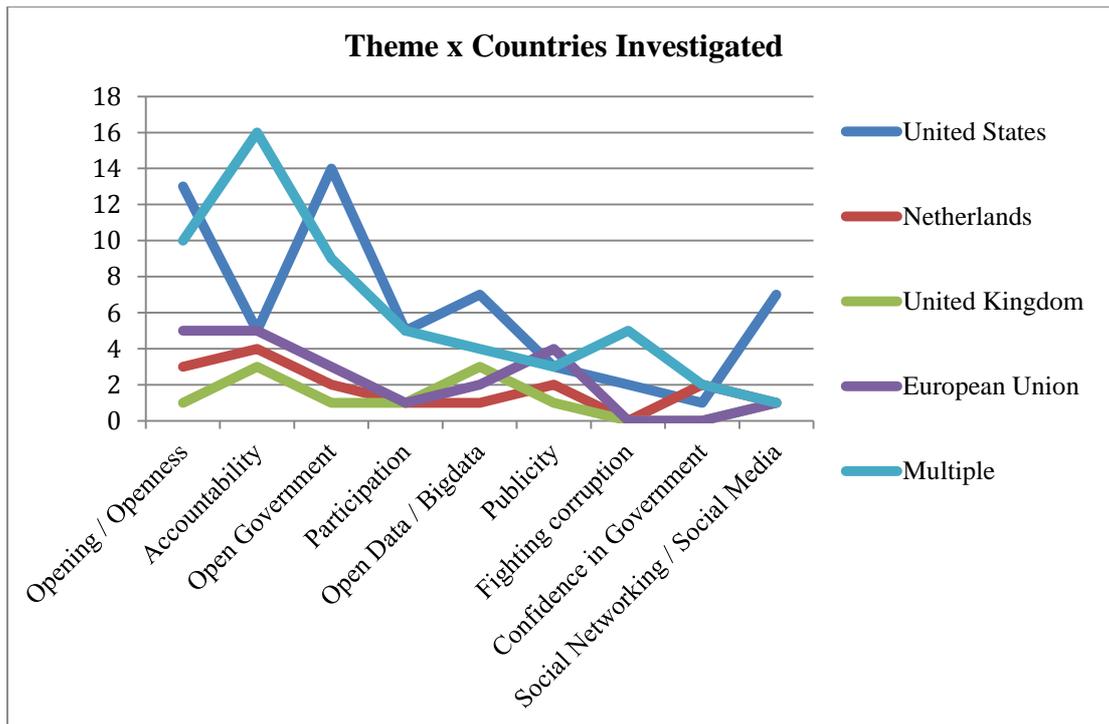


Source: Survey conducted by the authors in September and October, 2014.

#### 4.2.3 Comparing theme and major countries

The United States of America, followed by researches in several countries and the European Union, represented the major occurrences of the analyzed sample regarding the object of study (according to graph five). A comparison between the themes approached in the papers and the countries that were object of research reveals that the authors majorly approached the themes accountability, openness, open government, open data/bigdata, and social networks/social media. A possible explanation for these themes to be highlighted are the initiatives of government transparency undertaken by these countries.

Graph 10: Comparing theme and the countries investigated



Source: Survey conducted by the authors in September and October, 2014.

#### 4.2.4 Comparing field and mean of publication

Multidisciplinary studies prevail in the international literature on transparency and the internet, with 59.5% of the texts published in journals, validating the diverse character of the discipline. Subsequently, we observe a great volume of papers covering e-transparency published in the fields of Sociology and Political Science, numbering 24 studies (20.7%). In this analysis, we suppressed the papers presented in events due to the lack of an official classification per area in the scientific journals.

Table 2: comparing field and mean of publication

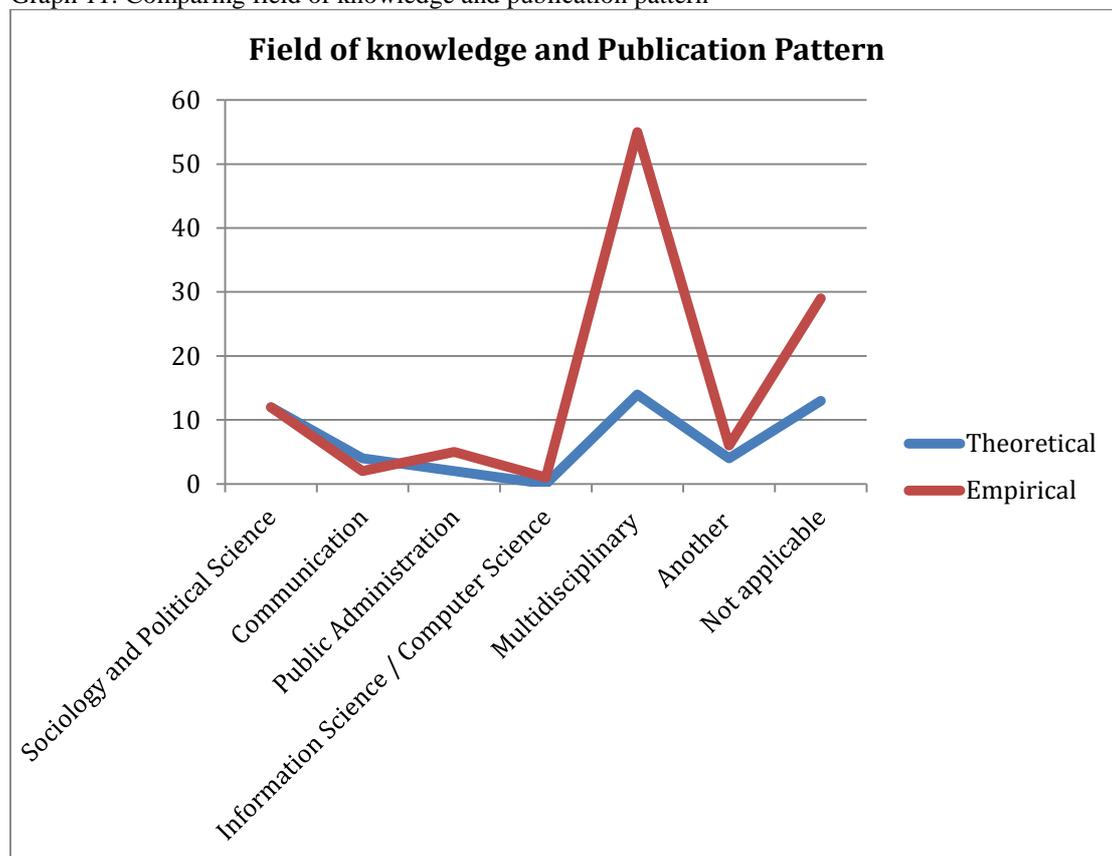
Field	Mean of publication	
	Magazine	Event
Sociology and Political Science	24	0
Communication	6	0
Public Administration	7	0
Information Science / Computer Science	1	0
Multidisciplinary	67	2
Another	10	0
Not applicable	1	41

Source: Survey conducted by the authors in September and October, 2014.

#### 4.2.5 Comparing field and publication pattern

Empiric papers correspond to 69.2% of the identified studies (110) against 49 theoretical papers, pointing out to a clear inclination of scholars towards case studies and comparative investigations. In this context, it is worth mentioning a specific observation on multidisciplinary studies, which are on the top for both publication patterns, corresponding to 28.6% (14) of the theoretical studies, and 50% (55) of the empiric. In the field of Social Sciences (Sociology and Political Science), second place in occurrences, the publication pattern was identical between both possibilities, with 12 papers for each modality.

Graph 11: Comparing field of knowledge and publication pattern



Source: Survey conducted by the authors in September and October, 2014.

## 5 Final remarks

All of the 159 papers that were part of our sample indicated an increasing in studies on transparency and the internet in several fields of knowledge, with emphasis to Social Sciences. The United States of America are the major object of empiric studies followed by the tendency to comparative studies among countries. The commitment to publicity, materialized in institutions and regulations, has increasingly

become a distinctive mark of quality in contemporary states. Accordingly, countries with democratic maturity tend to present models and projects of transparency with a certain accumulation of good practices that raise the interest of researchers in understanding their experiences to consolidate tendencies and behaviors related to the phenomenon. The sample did not indicate a significant amount of countries with totalitarian regimes.

The contemporary tendency to transparency has included the reinforcement of mechanisms that lead to greater openness by the State and the constitution of an interface system between those taking political decisions and implementing public policies, inside the State, and citizens. Therefore, it is reasonable to understand the cause of the expansion of researches on themes such as accountability and openness (open government, open data, bigdata) occurring along the recent years.

The increasing number of empiric studies demonstrates the importance of improving methods and practices of study able to enlarge the understanding on the phenomenon. Thus, further studies of this character will represent a definite contribution to consolidate the development marks of researches on transparency and the internet.

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