

Article

# Theoretical Aspects of Scholarly Publishing about the Internet in Spanish Communication Journals

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**Abstract:** Theoretical aspects of scholarly publishing about the Internet in communication sciences in Spain have received little attention. The present text analyses scientific framework, categories, concepts and keywords used in research, collected from the most relevant specialized Spanish journals in the field, as well as research objectives that are pursued in connection to communication levels of study and types of data. A content analysis of a representative sample of 227 scientific articles was done in the five leading Spanish journals in communication in the period 1995–2015, in which the academic interesting on Internet as an object of study was consolidated. The results show a predominance of descriptive theoretical frameworks and a hegemony of journalism as an academic reference. Nevertheless, there is an increase complexity out of the mass media field. The research on the Internet in the communication field is presented as a reflexive opportunity to understand interdisciplinarity and the way this acquires epistemological consistence in the scientific discourse.

**Keywords:** science; communication; research; Internet; scientific periodicals; Spain

## 1. Introduction: Communication Meta-Analysis in Spain

A fundamental problem that arises from the presence of the Internet as a tool for communication is the need to have different methods and theories within communication sciences for digging in those social realities that begin to be produced and reproduced in and through the cyberspace.

Communication as a field is not all about media, although historically the discipline has focused on media practices. Scholars in the field has always struggled to cover a wider area of analysis considering processes of social interactions and meaning constructions. Internet has been seen as an opportunity to finally joined research on macro media and micro media, technology and social uses, corporate perspectives and community initiatives. Assessing how Internet as an object of study has been built from a theoretical point of view can help to understand some of the epistemological transformations carried out within communication sciences thanks to cyberspace.

Some authors such as Brügger [1] p. 24 consider new theories unnecessary to approach the new medium, although he also believes new methodologies that address the dynamism of the Internet as a fluctuating object of study are valid. However, it is a matter still under debate, with mixed opinions and very few certainties reached.

Studying research practices and theoretical debates around the scientific appropriation of the Internet as an object of study in communication is relevant because it places us in front of a current, but at the same time very changing body of knowledge, with an increasing transversal nature and

value for the rest of media that could have enormous importance in redefining the academic field of communication itself.

By virtue of the transdisciplinary nature of the Internet as an object of study, many of the leading publications in communication research on the medium are not exclusively dedicated to this area of knowledge, but rather address other nearby fields. It can be affirmed that Internet studies constitute an epistemic frontier zone and this transdisciplinary character is strengthened as the object intersects repeatedly and in crescendo with other objects of knowledge from social reality.

The topics that have caused the most interest in the scientific community in relation to Internet communication research have been changing as the cyberspace itself underwent important transformations in its social essence.

However, two concerns have remained unchanged among the most significant for several years in a row [2,3]: on one hand, the uses and perceptions about the medium in specific groups of users and on the other, the political, democratic and development processes linked to cyberspace.

When reviewing the temporal behavior of the topics of interest within the research agenda on Internet in communication, it becomes evident the transfer of the old cores of concerns established within the field from its origins, such as the effects and impact of the media at organizational and individual levels, to the reality of the new medium.

Of the works carried out within the field of communication sciences on the Internet in Spain, we have, above all, partial thematic explorations without there being any exhaustive text available that tells us of theoretical–methodological trends or typologies of scientific discourse on the object of study in debate.

Most of the meta-analytical investigations carried out in recent years [2–9] have focused on scientific production on the Internet in the Anglo–Saxon world, although there is also notable growing interest in the Asian situation.

Spain, however, remains an area of low scientific visibility in the research carried out in relation to the cyberspace within communication sciences. Neither many specialists in the region publish nor is Spanish a reference language on the subject. This, without a doubt, constitutes a challenge for researchers in the academic field in the region, but it is also an unexplored opportunity for Hispanic culture, with Spanish language specifically as a connecting link.

Of all the meta-investigations on the Internet conducted globally during the period of study, the most exhaustive is probably the one carried out by Tomasello and Lee [7]. Among the main international impact journals in Internet communication research, from 1990 to 2004, that collect the most referenced scientific works—a total of 102 according to Tomasello and Lee [7]—are *Communication Research*, *New Media & Society*, *Information Society* and *Internet Research*.

The authors determine these publications based on the application of Bradford's Law, which supports the nonproportional distribution of articles on a subject in a small group of journals, which in the end concentrate the most select part of the scientific production within of that line of studies in question. These journals constitute the smallest group with the highest concentration of scientific production of Internet communication studies internationally.

The growth of studies on the Internet responds, also, to the continuous opening of fronts of analysis and edges of epistemic approach of different nature, to which communication researchers have been joining throughout these years.

From the theoretical point of view, the perspective of uses and gratifications as a framework for analysis predominates. This reemergence of the uses and gratifications perspective is interesting, much criticized precisely for its marked individualistic approach, relegated in the 1960s, 1970s and 1980s by semiotics, cultural studies and audience ethnography.

If we consider the recent interest of research agenda in the cultural and social aspects of the Internet, then the preeminence of uses and gratifications theory may seem contradictory as pointed out by Tomasello and Lee [7]. In the end, Internet cultural nature is being approached from a functionalist perspective, not from a critical or hermeneutical vision.

According to Tomasello and Lee [7] it is also striking the absence of theoretical background in a large number of articles, which depicts a weakness in the studies themselves, which is undoubtedly related to the manifest inability of many of them to make more enriching proposals and reflections on the Internet and its social thickness.

Communication meta-analysis studies are somewhat behind in Spain compared to the rest of Europe, the United States or even Latin America. Starting with the 1970s especially, research begins to be conducted about this topic, mainly from university spaces, considering the institutionalization of higher education careers linked to this area; as it happened with journalism, for example.

Higher studies in communication began in Spain with degrees in journalism, Advertising and Image in the Universities of Navarra, the Complutense University of Madrid, the Autonomous University of Barcelona and the University of the Basque Country, all state funded except for the first one. The experience of these centers as agents that produce knowledge in the area explains the relevance that they still have today in peninsular communication research.

It is also necessary to know what practices have been developed that can demonstrate a process of institutionalization of Internet research in communication if that is the case. In addition, to what extent that process occurred in a country like Spain, with an Internet penetration rate of above 80%, as indicated by the media general survey of the association for media research in the February–March 2020 period [10]. In addition, it is necessary to point to a growing interest in bibliometric and meta-analytic studies in the scientific field of communication [11–20].

Communication sciences have a disciplinary status under constant questioning. The authors are even divided on whether it is appropriate to call the area —"discipline" [21,22], (among others)— or "field" [23–25]. In any case, fragmentation seems to be a constant, both in terms of types of research on certain media and communication processes and the existence of several island-like theories and that do not establish a fertile dialog with similar ones [23–26].

Rosengren ([23], p. 6) says in one of the special issues of the *Journal of Communication*, entitled 'The Disciplinary Status of Research in Communication', that this field is similar to one full of ponds where the croaking of frogs is not harmonious and with very few cases of successful epistemological dialog.

This situation makes it a complex task to attempt a systematization of the epistemological evolution of research in communication, even if it is one of its main milestones.

As Louise Jane Phillips [27] p. 4 explains, the existence of at least two perspectives or epistemological traditions within the field, the positivist or administrative and the critical or sociocultural, was recognized since the time of the special issue led by Gerbner and Siefert. Following this logic, Phillips recalls cases of interconnection within the famous ponds that Rosengren [23] p. 6 spoke of, such as, for example, the tradition of cultural studies that emerged from the intersection of semiotics with the critical school and the Marxism of Western Europe.

One of the pioneers in the attempt to establish an in-depth identification on the state of affairs in Spain was Daniel E. Jones [28], who in 1998 published in *Zer* (University of the Basque Country) his work 'Research on Communication in Spain: Evolution and Perspectives'. Shortly after, this journal would become one of the newest specialized scholarly publishing spaces in the area of communication where it preceded others such as *Anàlisi* (1980) of the Autonomous University of Barcelona, *Telos* (1985) of the Fundación Telefónica or *Comunicación y Sociedad* (1988) of the University of Navarra, among others.

From the mid-eighties on, there has been an increase in communication research in Spain with authors such as Manuel Martín Serrano, José Luis Piñuel, Miquel de Moragas, Miquel Rodrigo Alsina, among others. In particular, the work on the concept of mediation has an impact on Latin American authors such as Jesús Martín Barbero, Guillermo Orozco, among many others.

According to Martínez Nicolás and Saperas [29], however, despite this dynamism, research in Spain suffered a lack of critical reflection and a huge hegemonic presence of journalism as a referent. Although, "[...] there seems to be a resurgence of interest in investigating research recently, this type of review work is not abundant in the Spanish academic field" [29].

Likewise, these authors, Manuel Martínez Nicolás and Enric Saperas carry out an analysis of four Spanish journals specialized in communication research: *Anàlisi, Comunicació y Sociedad, Estudios sobre el Mensaje Periodístico* and *Zer*. This is done between 1998 and 2007 and established that the studies suffer from several significant imbalances. Regarding the Internet as an object of inquiry, they say:

“[...] the works that address communication in that digital environment constitute almost 20% of the analyzed ones, making the impact of digitalization on communicative practices and products one of the objects of study of biggest interest for the scientific community” [30] p. 1373.

In other words, between 2008 and 2014 the existence of a peak of scientific production on the topic of the Internet is confirmed in Spain. On the other hand, Castillo and Carretón [31], with their bibliometric analysis of the communication journals in Spain, seek to explore the state of research in the field according to ten journals, among which are *Zer, Latina de Comunicación Social, Comunicació y Sociedad, Estudios sobre el Mensaje Periodístico y Comunicar*, among others. These publications would have the highest impact in 2008 according to INRECS (in [31]) and serve as a source to discover the prevalence of quantitative studies.

De Filippo [32] is dedicated to systematizing Spanish scientific production in communication in the Web of Science (WOS) between 2007 and 2012, specifically in field journals indexed in the Social Science Citation Index (SSCI). The author points out that Spain is the fourth country that publishes journals of communication and the sixth producer of articles in the disciplinary area in quantitative terms worldwide. However, despite the spectacular evolution, the problem of international co-authorship of articles and the opening of publications to foreign collaborators is also underlined [32] p. 25.

Tato, García and Carrillo [24] reflect on the status of the issue of Spanish research in communication by reviewing the journals included in the main index of impact of the area in Spain INRECS, between 2010, 2011 and 2012. The text mentions succinctly the increasing relevance of the digital aspect for studies in the scientific field, especially in regard to the space of culture and the impact of Information and Communication Technologies in it [33] p. 7.

One of the latest works regarding Spanish research in communication is signed by professors Carmen Caffarel, Félix Ortega and Juan Antonio Gaitán, from the MapCom Research Group under the project ‘The research system in Spain on social practices of communication. Map of projects, groups, lines, objects of study and methods’ (MapCom [34]). It establishes, however, that the study of online communication spaces and the Internet is minor in relation to that of more traditional topics, which is at least surprising taking into consideration the large penetration Internet has on Spanish society and worldwide nowadays.

The interest in meta-analysis in Spain is evident when considering the number of works of this type in recent years. Little by little, this self-revision of the research trends is consolidated within the disciplinary area, which can help to correct problems and promote the development of this field of studies.

## 2. Materials, Methods and Limitations

This article deals with the main characteristics regarding scientific framework, categories or concepts, as well as keywords and objectives that are pursued in researching Internet as an object of study, collected from the most relevant specialized journals in communication field in Spain.

The main research question addressed is:

What are the main theoretical aspects of scholarly publishing about the Internet in the most relevant peer reviewed academic journals Spanish communication Journals?

According to this main research question, a series of research questions were defined:

RQ. (1) How is the scientific framework about Internet research in communication as a field in Spain assembled?

RQ. (2) What are the most common categories, concepts and keywords?

RQ. (3) What are the trends in research objectives in scholarly publishing in the most important academic journals in the area in relation to communication levels of study and types of data?

In our case, the theoretical framework is understood as the discussion or reflection on terms and concepts from the existing scientific discourse and the state of the art regarding the object of study.

The theoretical characteristics of scientific discourse are given by the conceptual behavior followed by research and depend on the objectives, the way of approaching the object of study and the categories or variables of analysis, among other elements. "[...] An object of investigation, no matter how partial, cannot be defined and constructed except as a function of a theoretical problem that allows a systematic examination of all aspects of reality related to the problems that are raised" [35] p. 54.

A content analysis was applied to full text articles taken from the set of published scientific texts obtained from the journals, which talk about the Internet as an object of analysis, as well as other related topics, such as globalization and the information or knowledge society, among others.

The journals selected for this research are: *Comunicación y Sociedad* (Communication and Society), *Comunicar*, *Estudios sobre el Mensaje Periodístico* (Studies on the Journalistic Message), *Revista Latina de Comunicación Social* (Latina Journal on Social Communication) and *Zer*. The five journals are scientific-academic references within the field of communication during the study period due to their long history and wide coverage (IN-RECS [36]).

The chosen journals are open to authors from all over the world and have a wide scope within communication taking into consideration the ample spectrum of the scientific area per se. Moreover, they are from different universities across Spain, located in very diverse regions such as the Basque Country, Canary Islands, Madrid, Navarra and Andalusia, with distinct traditions in the field.

*Comunicación y Sociedad* is supported by the University of Navarra, one of the oldest and most respected centers in communication studies in Spain. It is a quarterly journal which has been published totally in English after 2014. Disciplines covered by *Comunicación y Sociedad* include journalism, advertising, public relations, broadcast and film studies, political communication, among others.

*Comunicar*—one of the most prestigious Spanish publications today—is also a quarterly scientific journal, published both in Spanish and English. The editorial line focuses on areas such as communication and education, ICT, audiences, new languages, etc. We can trace its origins to the University of Málaga, in Andalusia.

On the other hand, *Estudios sobre el Mensaje Periodístico*—with articles primarily in Spanish—is published every three months and tries to promote research on journalism and communication. It is supported by the Complutense University of Madrid.

*Revista Latina de Comunicación Social* is a biannual scientific publication originally supported by the University of La Laguna, Tenerife, Canary Islands with a focus on journalism and communication.

Lastly, *Zer* is also a biannual scientific journal in this case supported by the University of the Basque Country. It publishes scientific articles in Spanish, Basque and English in the area of communication.

The study is framed over a period of 20 years, between 1995 and 2015, from a historical perspective. This allows us to verify the evolution of Internet as an object of study. The Internet expanded in Spain in the 1990s and developed a high social relevance during those years. This is the period in which online media consolidated in Spain, that occurred in two main stages. The first, generally speaking, is characterized by the transformation of traditional media into online media more or less from 1995 to 2005 and the second, which goes until 2015, by a radical change in the web 2.0 era that brings some citizen participation in the media. The last five years, until 2020, have witnessed the rise of fake news and communication distortion in the cyberspace and beyond. The above brings with it an increase in scientific interest in the object. A fundamental work that caught the attention of many academics in

social sciences in general and communication in particular was undoubtedly the trilogy published between 1996 and 1998—The Information Age, by the Spanish professor Manuel Castells. All of the above justifies the selection of the analysis period.

As Delgado and Repiso [37] point out, of the EC3 Science assessment and scientific communication research group of the University of Granada, *Revista Latina de Comunicación Social*, *Comunicación y Sociedad*, *Comunicar* and *Zer* are the only ones from Spain in the most extensive and respected database in the field of communication at the global level: Mass Media and communication Complete. In addition, *Comunicar*, *Comunicación y Sociedad* and *Estudios sobre el Mensaje Periodístico* have been incorporated to prestigious bases such as Web of Science in the Social Sciences Citation Index [37]. After carrying out a process of selection by means of searches of full text using keywords as descriptors in order to establish that the articles have the desired object of study, it has been verified that during the 1995–2015 period, a total of  $N = 548$  articles were published in the five journals.

This was obtained using a theoretical decantation procedure of the objects of study declared by authors in each article separately: Internet, the information society, knowledge society, globalization and others linked to cyberspace, carried out through full-text search procedures taking into account these keywords.

Obviously, researchers in the field of communication in Spain can publish in other formats and in different academic contexts, but in this paper, we focused on the study of the academic field in Spain through the most representative journals in accordance with scientific consensus.

Of the 548 articles that make up the total, a sample of  $n = 227$  cases was selected by means of a simple random probabilistic sampling, without replacement and assuming maximum population variability in the reference variable ( $P_1 P_0 = 0.5$ ). In this way, a representative sample of the population was conformed with a margin of error  $\pm 5\%$ , considering maximum variance  $p = q$  and a confidence margin of 95%.

This type of study allows "to determine trends in the production of documents on a given branch of knowledge" [38] p. 35 from the analysis of the "existing relationships between the parts of those records" [38] p. 34. That is why the description and cataloging of constituent sets of scientific production is carried out through the use of statistical-mathematical methods of quantitative type [39] p. 193.

The size  $n$  of the sample and the margin of error  $\epsilon$  were determined using Statstn software. Besides, SPSS and Sketch Engine computer programs were used to process the data.

We have adapted our analysis from MapCom Research Group [34] considering definitions from [40]. The codes were developed based on the criterion of theoretical saturation, after analyzing the scientific production published in the most representative journals of the academic field of communication in Spain during the period of analysis. Coding was carried out taking into account the frequency and also aspects of discourse rationale based on the semantic unity of terms according to the case, grouping those similar from the epistemological point of view.

This process of constant recategorization was carried out until reaching theoretical saturation on content analysis to establish coding procedures, respecting in all cases the theoretical/conceptual referents of the literature of the field and the original contributions of the researchers from their experiences in the published articles.

More than a fixed capture of Internet's current state of research, something complex above all due to the dynamism of the object and the constituting weak nature of communication as a scientific field, it would be more interesting to understand the appropriation process on part of the academic agents analyzing an object such as the Internet, as well as the epistemological, theoretical and methodological mechanisms activated for this purpose.

The wide thematic tuning point that the Internet implies as an object of study, as well as the scientific production that it has generated even in a specific field such as communication, leads us to face several challenges not only theoretical, but also in the collection and assessment of data. However, the greatest challenge is first and foremost analytical, hence the research is framed within temporal and spatial limits focusing on the five most important journals in the field in Spain during the years

of study, which, of course, do not allow us to reflect on the situation of peripheral publications and alternatives to the mainstream tradition in this case. Our article is just a first attempt to understand how scholarly publishing deal with the understanding of the Internet as an object of study within communication as a field, which is also subjected to a larger set of mediations and constraints whose scrutiny exceeds the purposes underpinning this paper.

### 3. Results: Scientific Discourse in Scholarly Publishing about the Internet in Spain

#### 3.1. Scientific Framework

The scientific framework acknowledged in a significant part of the texts (42.3% of the total) was the new emerging space of digital communication. Within this, we included references such as information society, cybermedia, digital culture, social networks, among others. In many cases, these still had a significant connection with sociology, but were becoming increasingly incorporated into the new field. From all of the above, we could say that the space of digital communication is gradually being placed in an advantageous position of being a reference in understanding media processes and the way in which they acquire social and cultural significance through technologies in a multiplicity of contexts.

However—and despite the possibilities of the Internet as a revitalizing engine of research in communication—in the case that concerns us, journalism is still very relevant and the main discipline that supports scientific discourse (25.1%), well ahead of other traditional reference disciplines such as audiovisual communication (15.4%) and advertising and public relations (6.2%).

We should also mention the relevance of pedagogy as another framework discipline in 6.6% of cases, especially due to the interest of some journals such as *Comunicar*, in dealing specifically with transdisciplinary links between educational and communicative processes.

#### 3.2. Categories, Concepts and Keywords

Within the theoretical features of scientific discourse, we have also paid attention to the study categories and concepts that have been used. We have analyzed both the main and secondary categories, subjecting them to a process of continuous recategorization as in the previous case in order to reach a consensus, respecting as before, the contributions of the authors.

In the case of the main categories we have the following: journalism, social uses, Internet, technology, communication, television, society, skills, cyber-journalism, media, advertising, hyper-textuality, convergence, interactivity and inclusion. In the case of secondary categories, we found several such as: learning, teaching, networks, local, culture, environment, participation, multimedia, reader and globalization.

The journalism category—with a percentage of 17.8%—is the most referenced, especially in articles that deal with topics related to content creation, specialized journalism, profile of the digital journalist, digital press or multimedia models, for example. This means that, although digital communication is the framework discipline, it is being used fundamentally to continue studying journalism as a professional practice and the main nucleus of the social representation of the field in Spain among the scientific community. Second, it is followed by the use category (12.1%) with a significant presence in articles related to teaching, the virtual environment, new tools and online education. The third place corresponds to the Internet as a reflection category (10.3%) with articles usually focused on changes and historical evolution. In a lesser proportion, concepts such as hyper-textuality (3.7%), interactivity (2.8%), convergence (2.8%) and inclusion (2.8%) can be seen in the articles but are in minority.

In the case of secondary categories, learning (14.3%) and teaching (12.2%) jointly account for 26.5% of the total, expressing the high connection of studies to educational contexts. Globalization (16.3%) and locality (12.2%) are also concepts that spark much interest and are probably the most enriched categories of the Internet communication discourse in the last two decades. In fact, between them, they participate in 28.5% of the total categorical discourse. The rest of secondary categories (culture, environment, participation, multimedia and reader) have a percentage equal to or lower than 8.2%.

In the field of keywords—that is, the terms chosen to designate the different thematic aspects of articles—we find that in regards to the first indexed word, Internet is the most used (19.9%), followed closely by journalism (15.6%). Internet and communication, both with 17.5%, are the most used as second keywords of the texts. This means that, in fact, journalism is the most frequent and highest-ranking word in discourses, above the new medium as an object of study. This speaks of the Internet as being addressed primarily in the context of informative practices and reduced especially to the space of cyber-journalism.

Beyond the category systems and selected study aspects since the mid-nineties research on the Internet has acquired notorious academic consistency.

### 3.3. Types of Research Objectives

Analyzing the objectives of each article allows us to get an idea of the depth of the research effort, as well as of the representation schemes that are considered important in the study of the Internet in this field in Spain. Although it is not always possible to identify hypotheses or premises, the intentionality of research is in almost all cases explicit as a distinctive feature of scientific discourse.

In the first place, descriptive studies reach 55.9% of the total, that is, more than half of the sample analyzed. Description focuses more on the “what” than the “why” regarding the object of study. This means the researcher is not interested in explaining causes or interpreting data, but primarily wants to establish the facts that define a specific phenomenon. In this type of research, the objectives seek above all the observation and registration of processes without intervening in their natural course. In that sense, the description can occur retrospectively or prospectively.

Second, there are articles with explanatory objectives—37.9% of the sample— that seek to give arguments and cause–effect relationships, without there being a process of intervention on reality in a manifest manner; the researcher is therefore a mere observer of the processes he examines.

Finally, in the articles where it is denoted that research seeks social change and that they represent indeed an intervention—a percentage of 4.8%—it is possible to see how the so-called applied research and action-participation develop. However, these are a minority, along with texts evaluating both theoretical and methodological models, which only reach 1.3% of the total sample.

The predominance of descriptive types speaks to us of a stage of incipient and immature research from the epistemological point of view. In addition, it tells us that the field has not completely overcome the first stage of obnubilation that the Internet has caused in the sciences of communication not only in Spain, but also globally.

Obviously, there are exceptions to this hegemony of the descriptive. Spanish research around education and new technologies for example, certainly use more evaluation or intervention methodological schemes. These studies are usually oriented to develop educational strategies for the pedagogical use of online electronic media at all levels of education.

If we study the temporal evolution of the research according to the objectives, we find that in the first years there is a high presence of descriptive texts; the highest figure of the whole study is found with 8.4% in the year 2000. This is then moderated, especially in the last five years (with an average of 4.8%) allowing the presence of texts of greater complexity such as evaluation- with records of 0.4% in 2004, 2006 or 2014 and the intervention ones, which reached 1.8% in 2012, at their peak. However, the descriptive articles (which do not fall below 0.9% in any year) and explanatory articles (which in 2012 were first position with 6.6%, even ahead of the descriptive ones in that year, at 4.8%) are more constant over time; especially the former is almost omnipresent, while those of evaluation and intervention are anecdotal compared to the previous ones.

Similarly, as shown in Table 1, observing the level of communication of scientific discourse and the objectives of published research altogether, we can see that 52% of the descriptive texts lead the analysis within the space of mass communication. In fact, in all types of objectives considered, the massive level is hegemonic, thus confirming the not only descriptive nature, but also the media-centric nature of Internet research in the Spanish context.



**Table 1.** Communicative level vs. research objectives.

Communication Level/Objectives	Interpersonal	Group	Organizational	Mass Media
Description	0.4%	0.9%	2.6%	52%
Explanation	0.9%	4.4%	5.3%	27.3%
Evaluation	0%	0.4%	0%	0.9%
Intervention	0%	1.3%	0%	3.5%

scientific articles: n = 227. Source: designed by the authors in Madrid, 2020.

On the other hand, the group level is significant in the evaluation and intervention texts, which speaks of the possibility of expanding these study horizons, especially from the relative importance that the investigation seems to have in the scientific-academic field in regards to educational spaces and the impact of new technologies on them. The texts that give place to more types of communication levels are the explanatory ones where, in spite of the incontestable predominance of the massive level, we see the presence of the group, the organizational and even the interpersonal field. This probably indicates a very incipient takeoff of the research towards more complex theoretical-methodological models than those that mere description allows for.

In fact, when crossing the typology of data with research objectives forms, as shown in Table 2, in the presence of description, there is a predominance of qualitative data while, in explanatory texts, of evaluation and of intervention, mixed data are more evident. However, we must not lose sight of the fact that the qualitative description is the hegemonic mix that characterizes research on the topic of the Internet in the field of communication in Spain during these twenty years studied.

**Table 2.** Types of data vs. research objectives.

Data /Objectives	Quantitative	Qualitative	Mixed	Textual-Discursive
Description	1.3%	26.9%	15.9%	11.9%
Explanation	6.6%	10.1%	16.7%	4.4%
Evaluation	0%	0.4%	0.9%	0%
Intervention	1.3%	0.9%	2.6%	0%

scientific articles: n = 227. Source: designed by the authors in Madrid, 2020.

#### 4. Discussion and Conclusions

To determine the theoretical features of the discourse on the object of study, we have considered the framework scientific disciplines, the categories and concepts of the research, the essential keywords and the type of research objectives pursued in relation to communication levels of study and types of data.

It has been said that in general, Spanish research on the Internet is mostly media-centric, although it is true that in recent times there has been a tendency to incorporate the group and organizational levels of communication, however not the interpersonal one. The latter confirms the findings of Caffarel, Ortega and Gaitán in this regard [41], explaining the prevalence of traditional objects of study in Spanish communication research.

It should be added to the above, that when evaluating the weight of the framework discipline together with the study themes, journalism is central to the discourse about the Internet in Spain within communication as a field; to the point that, after the digital communication itself, this is placed as the most significant reference of articles published between 1995 and 2015. The topics of audiovisual communication, advertising and public relations, as well as pedagogy are also very relevant, although to a lesser extent in the texts of specialized journals—highlighting those related to virtual teaching processes or the use of new technologies in the classroom. Certainly, the Internet is definitely all about

communication, since that is its main purpose, but in the analyzed articles the central focus is on online news production and practices rather than on social communication as a broader field of study.

The centrality of journalism and its practices mediated by the Internet is also confirmed if we look at the categories of scientific discourse in the case of articles analyzed. Concepts such as journalism, use, Internet, technology, communication, television, society, skills, cyber-journalism, media, advertising, hyper-textuality, convergence, interactivity and inclusion illustrate the interest that information has as a structuring axis of research, whether in its facet of production, distribution or consumption. Among the most used keywords to tag the articles themselves are Internet, followed by communication and journalism. This is also consistent with findings from Martínez Nicolás and Saperas [29], giving journalism a dominance in the field even in the Internet era with the crisis the discipline is facing in professional and labor market terms.

Thus, the main topics of study can be divided into three broad areas: media, politics and culture. The first, of greater quantitative weight in the investigation, includes the tendencies of digital journalism, of online information genres, of virtual graphic design, of the behavior of users in front of media or advertising products in the cyberspace, the narrative of video-games, the consumption of audiovisual on the Internet, among others.

Secondly, to a lesser extent, the other great source of discussion has a more philosophical component and is particularly concerned with online participation processes. Here we have the issues of globalization, convergence, information society, political communication in social networks and the use of these by young people, social movements in the network, electronic administration, etc.

Then, thirdly, —and very much on the periphery of the discourse—are the questions of cultural change promoted by new technologies and here we have the intersection between digital resources and pedagogical processes, online identity constructs, including gender, new linguistic representations, virtual reconfigurations of couple relationships, among other similar issues.

Regarding the manifest research objectives in the journals, these are mainly descriptive throughout the considered historical period and exceeding by far more than half of the cases. Between 1995 and 2000 and deep into 2009, it is undeniable that description is the main illocutionary form of the scientific discourse about the Internet in articles. However, from 2009 onwards, the presence of descriptive objectives diminishes, giving way to the hegemony of explanatory objectives that grow to occupy the first position. This is inherent in the gradual maturation on the process of taking the Internet as an object of study, without implying that the stage of development of the discourse on the Internet is not still incipient.

Description diminishes in front of non-mediacentric issues just as it occurs in the face of education and new technologies, while its use is greater when dealing with more traditional topics of the field, such as those related to journalism as a professional practice.

In fact, it is the explanatory and evaluative texts, for example and not descriptive texts, which allow a better balance between the different levels of communication in the studies, as well as a greater variety of data sources, beyond the hegemony of the massive level and qualitative and mixed data, the latter especially in more recent times.

We could think that description hegemony here is connected to quantitative data prevalence as Castillo and Carretón [31] have pointed out, but our results indicate that Internet research in Spain within communication field is mainly qualitative although also descriptive and mediacentric which concurs with Kim and Weaver [2], Peng et. al. [12] and also Tomasello [4], among other referents.

In general, communication research about the Internet in the Spanish context seemed to be looking for new problematics, but with the same traditional theoretical frameworks than scholars have always used with little innovation in this regard. Therefore, we need to improve research strategies to respond challenges we are facing today as a scientific field in the age of Information and Communication Technologies.

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