Comunicar

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The Media Sphere
Controversies in Public Life

La esfera mediática. Controversias en la vida pública

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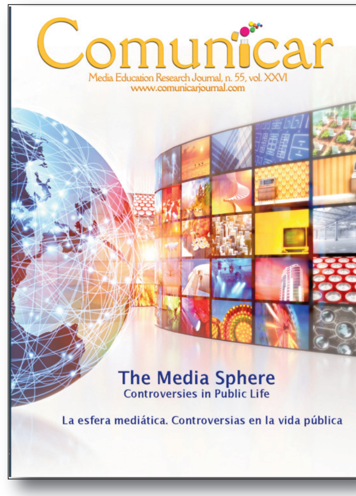

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Contents are moderated by means of peer review, in accordance with the publication standards established in the APA (American Psychological Association) manual. Compliance with these requirements facilitates indexation in the main databases of international journals in this field, which increases the dissemination of the papers published and therefore raises the profile of the authors and their centres.

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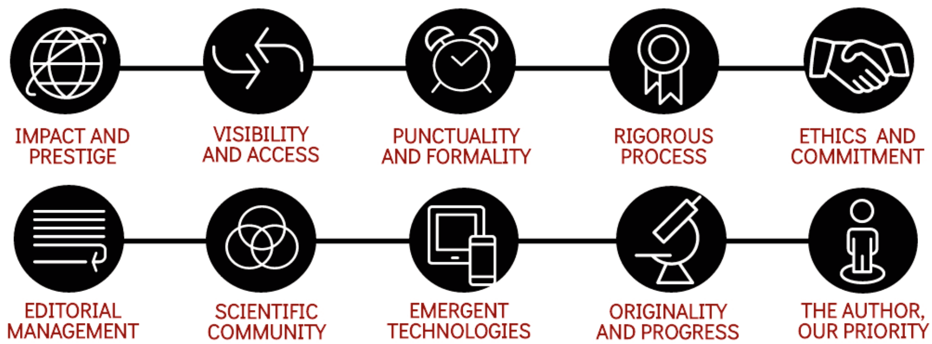

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- Percent of manuscripts accepted: 4,83%; Percent of manuscript rejected: 95,17%.
- Received manuscripts internationalisation: 26 countries.
- Numbers of Reviews: 224 (update: www.comunicarjournal.com).
- Scientific Reviewers internationalisation: 20 countries.
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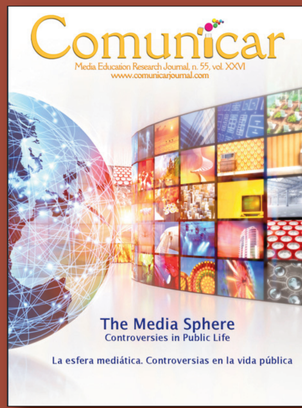

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Special topic issue

The media sphere. Controversies in public life

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Communicating science: The profile of science journalists in Spain

Comunicar la ciencia: El perfil del periodista científico en España

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ABSTRACT
Science journalists are mainly responsible for publicly communicating science, which, in turn, is a major indicator of the social development of democratic societies. The transmission of quality scientific information that is rigorously researched and understandable is therefore crucial, and demand for this kind of information from both governments and citizens is growing. We analyzed the academic profiles of a representative sample of practicing science journalists in Spain to clarify what training they had received and how they perceived the quality and scope of this training. Using an ethnographic methodology based on a survey, in-depth interviews and focus group discussions with science journalists working for the main Spanish media (mainly printed press, audiovisual, Internet and news agencies), we analyze their academic backgrounds and collect information on their opinions and proposals. Our findings depict a complex and heterogeneous scenario and also reveal that most science journalists not only do not have any scientific training, but also do not even consider this to be necessary to exercise as science reporters. They also criticize the current system for training journalists and consider that the best way of learning the profession is by acquiring experience on the job.

RESUMEN
El periodista científico es uno de los principales responsables en la cadena de transmisión e interpretación hacia la sociedad de toda noticia, novedad o avance de carácter científico. A su vez, una información científica rigurosa, comprensible y de calidad es, además, un indicador del desarrollo social. La demanda de este tipo de información crece cada día en nuestras sociedades, tanto por parte de los gobiernos como de los ciudadanos. Por este motivo, y con el objetivo de esclarecer cuál es el perfil de los periodistas científicos que deben lidiar con tal responsabilidad, cómo se han formado y cómo ellos mismos creen que deberían haber sido formados, en esta investigación analizamos los perfiles académicos (tanto el real como el ideal) de estos profesionales en España. Utilizando una metodología etnográfica, basada en entrevistas, cuestionarios y focus group con periodistas científicos que trabajan en los principales medios españoles, analizamos su trayectoria académica y sus consideraciones y propuestas al respecto. Los resultados muestran un escenario complejo y heterogéneo, pero también revelan que la mayoría de los periodistas científicos no solo no goza de una titulación universitaria en el ámbito científico, sino que tampoco la considera necesaria. Los periodistas científicos son críticos con el sistema educativo y consideran que la mejor forma de aprender es trabajar en los medios, más que estudiar.

KEYWORDS | PALABRAS CLAVE
Science Journalism, popularization of science, science communication, information providers, communication skills, training, science 2.0, information quality.
Periodismo científico, popularización de la ciencia, divulgación científica, proveedores de información, competencias comunicativas, formación, ciencia 2.0, calidad informativa.

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1. Introduction and state of the art

Science is a crucial part of our lives and an indicator of the social development of democratic societies. Its dissemination and popularization is, therefore, a priority for the European Union, governments, and international institutions around the world. Franco (2008: 97), in a study of the challenges of science journalism, argues that "science is one of the pillars of society: with it citizenship is built, disease is combated, poverty is overcome and wars are won".

However, bringing science knowledge and advances to the public in a clear and comprehensible way and highlighting the implications for our daily lives, is not an easy task. While this responsibility is shared with the media, scientists, and governments, science journalists are the last link in the chain of transmission, and their task of interpreting scientific results is often highly complex and conceptually and methodologically abstract. As Bauer, Howard, Romo-Ramos, Massarani and Amorim state (2013: 1), "social discussion about science is vital for any modern culture, and it is very important to identify the changing conditions in which this discussion about science takes place in different contexts. Clearly, science journalists play a fundamental role".

However, the work of science journalists, despite the great consensus about their important social function, is not always appreciated by newsroom editors, who tend to relegate science news to a secondary role (Brumfield, 2009; Williams & Clifford, 2008). Nor is it always applauded by the scientific community, which often sees defects or simplifications in the journalistic interpretation of their research, sometimes with sensationalist touches (Rosen, Guenther, & Froehlich, 2016; Lynch, Bennett, Luntz, Toy, & Van-Benschoten, 2014).

In May 2014 on CNN's StarTalk programme conducted by science journalist Miles O'Brien, astrophysicist and science popularizer Neil deGrasse Tyson, in response to the question "What's wrong with science journalism?", pointed to issues such as the desire for protagonism of journalists, audiences, and leaders (Meneses-Fernández & Martín-Gutiérrez, 2015). Journalists tend to deviate from quality science journalism for reasons that go beyond scientists and science, according to deGrasse Tyson, who questions the suitability of an exclusive focus on the journalists' communication profile, when a major problem is their inadequate scientific training. This situation exemplifies the less than satisfactory relationship between scientists and journalists, widely studied by authors such as Calvo-Hernando (1977), Besley (2010), Bauer, Howard, Romo-Ramos, Massarani and Amorim (2013), Peters (2013), Lynch, Bennett, Luntz, Toy and Van-Benschoten (2014), and Meneses-Fernández and Martín-Gutiérrez (2015).

Who are the science journalists, however? And what training have they received to equip them to deal with such a great responsibility? The overall purpose of this article is to explore the academic profile of science journalists. Specific objectives are as follows: (1) to analyze the academic training received by science journalists; (2) to analyze the academic training that journalists consider ideal and compare it with the training they actually received; and (3) to analyze gaps in the Spanish educational system in this area, and consider how they could be resolved.

Modern science journalism originated between the late 1800s and the 1940s, a period that embraced the Second Industrial Revolution and the two World Wars. People's interest in technological advances grew, especially in relation to war, atomic energy, and the space race. In Spain, however, it was not until the 1980s and 1990s that specialist science and technology pages, sections or supplements were included in major newspapers (Moreno, 2003).

However, the scenario has changed in recent years, as science has been one of the journalism' specialties most affected by the economic crisis unleashed in recent years in much of Europe and the world. Most science supplements and pages have shrunk or disappeared altogether, and this has inevitably led to staff cutbacks, restructured newsrooms, and revised editorial functions (Kristiansen, Schäfer, & Lorencez, 2016; Cortiñas, Lazcano-Peña, & Pont, 2015; Williams & Clifford, 2008). These disruptive changes are very likely to have caused important changes in work routines and in science journalist profiles in recent years. Although there is ample literature regarding science journalism in Spain, as far as we are aware, no research to date has used ethnographic techniques to investigate the academic profiles of Spanish science journalists.

The journalist Manuel Calvo-Hernando (1977) laid the foundations for research into science journalism in Spain. Subsequently, researchers such as De-Semir (1996), Revuelta (1999), Fernández-Muerza (2004) and Cortiñas (2006; 2009) analyzed the dissemination of science in Spain, while Duran (1997), Del-Puerto (2000), Cortiñas (2008) and Elías (2008) investigated news handling of scientific results. Meanwhile, Moreno and Gómez (2002) took the first steps in researching the university training of science journalists in Spain. More recently, Cortiñas led studies on perceptions of pseudoscience by science journalists (Cortiñas, Alonso, Pont, & Escribà, 2014) and the impact of the economic crisis on science journalism (Cortiñas, Lazcano-Peña, & Pont, 2015).

Numerous international studies of science journalism analyse the work routines of science journalists and the difficulties and challenges facing the profession (Friedman, 1986; Hansen, 1994; Nelkin, 1995; Peters, 2013; Brumfield, 2009; Irwin, 2009; Williams & Clifford, 2008; Jensen, 2010; Schäfer, 2010; Secko, Amend, & Friday, 2013; Badenschier & Wormer, 2012; Bauer, Howard, Romo-Ramos, Massarani, & Amorim, 2013; Mellor, 2015; Kristiansen, Schäfer, & Lorencez, 2016). Some of these studies discuss the profile and training received by science journalists.

One of the most recent reports on science journalism is the "Global Science Journalism Report: Working Conditions and Practices, Professional Ethos and Future Expectations" (Bauer, Howard, Romo-Ramos, Massarani, & Amorim, 2013). Although this report does not focus specifically on the academic training of science journalists, it does provide some relevant information in this regard – for instance; it documents the fact that only 20%-25% of surveyed science journalists received academic training that combined journalism and science.

Regarding the future of the profession, most science journalists in our sample advocate the need to promote mixed or interdisciplinary profiles, whether through formal training or tutored work experience. For most of these journalists, on-the-job learning is the key to the development of a good science journalist. Nonetheless, it continues to be desirable for both academia and the media to invest greater efforts and resources in the training and growth of professionals capable of communicating science from a rigorous and critical perspective.

In previous studies, mostly focused on the USA and Canada, Palen (1994) also reported that few journalists had received scientific training. Weaver and Wilhoit (1996) confirmed that only 3% of university-educated journalists have a degree in science, regardless of their area of work and Hartz and Chappell (1997) concluded that most science reporters specialized in scientific information in the newsroom.

The studies of the above authors would suggest that journalists, in general, require more scientific training and, even more emphatically, for science journalists in particular.

Referring to science journalism in Spain, Elías (1999) distinguishes between the 'specialist journalist' and the 'journalist by habit'; that is, between journalists with proper scientific training and journalists without scientific training who rate themselves as specialists because they have been working in the area for a long time.

Fahy and Nisbet (2011), in their analysis of the challenges facing science journalism, conclude that the science journalist of today requires scientific knowledge as well as journalistic skills to be able not only to transmit science results but to adopt a critical and analytical perspective. Williams and Clifford (2008), drawing on interviews with 47 UK science journalists, warn that science journalists have insufficient time for investigations and have increasingly become slaves to communiqués and press conferences. Kristiansen, Schäfer, and Lorencez (2016), in a study based on interviews with 78 Swiss science journalists, confirm that although working conditions in Switzerland are privileged in comparison with other countries, the economic crisis and newsroom budgetary cuts have negatively affected the routines of science journalists.

This impact of cutbacks was also confirmed in widely disseminated articles for Nature written by Toby Murcott (2009), science correspondent for the BBC, and Boyce Rensberger (2009), science correspondent for the Washington Post with over 30 years of science journalism and editorial experience. Both journalists also advocated less dependence on press releases and a more critical role for the science journalist. One clear conclusion, shared with Fahy and Nisbet (2011) and Williams and Clifford (2008), was that there was a need for more scientific training for journalists specializing in this area and dealing with often unfavorable working conditions.

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2. Material and methods

This research, conducted within an ethnographic methodological context, was based on qualitative techniques (structured in-depth interviews based on open questions and focus group discussions) and quantitative techniques (a closed-question survey). This methodological triangulation allowed us not only to obtain quantitative data but also to observe and report concerns, feelings, and nuances as expressed by the science journalists themselves.

Understood as a science journalist is someone who has demonstrable and considerable experience as a journalist, and whose main professional occupation is to write about science for the media (whatever their academic background). In the case of freelance journalists, only included were freelancers whose dedication was equivalent regarding salary to a reputable journalist specializing in science.

A total of 49 science journalists covering science, technology and the environment for Spanish media were included in this study: 32 men (65%) and 17 women (35%). Regarding media, 35% work in the press, 33% in audio-visual media (radio and television), 16% on the internet, 6% in news agencies and 4% in other media.

There is no specific census of the number of science journalists working for the Spanish media. However, based on data provided by the interviewees themselves and other inferences, we estimate that there are around 150 science journalists in Spain. Our sample can be considered reasonably representative, as it includes a third of all science journalists working for the Spanish media. Journalists from specific newspapers refused to participate as informants, although this fact did not significantly alter the representativeness of this study.

Two focus groups were arranged, lasting (approximately) 90 minutes each: one with 12 and the other with 15 participants, both composed of a similar proportion of science journalists (four of whom were also interviewed) and scientists. The focus groups were held in Barcelona between September and May 2012. Interviews were recorded and transcribed with the permission of the interviewees. Likewise, the focus group discussions and survey were conducted in person, and the confidentiality of the data provided by the informants was guaranteed.

Since the aim of this research was to shed light on the academic training of science journalists and their perceptions regarding the relationship between their profession and training, we attempted to answer three research questions:

- What is the academic profile of science journalists in Spain?
- What is the ideal academic profile for a science journalist?
- What is lacking in the academic training of science journalists and how can this lack be overcome?

3. Analysis and results

Six different science journalist profiles were detected among the study participants and categorized regarding academic training (Figure 1):

- With university studies in journalism/communication without scientific training (n=18; 36.73%).
- With university studies in journalism/communication and a master's/doctorate in science (n=6; 12.24%).
- With university studies in science without journalism training (n= 6; 12.24%).
- With university studies in science and a master's/doctorate in journalism/communication (n=12; 24.49%).
- With university studies unrelated to journalism or science (n=4; 8.16%).
- With no university studies (n=3; 6.12%).

3.1. More journalistic than scientific training

The most typical profile of science journalists in Spain –although not in the majority (category a: 36.73%)– is that of a journalist graduate without specialist training in science. Nonetheless, an equal proportion has both scientific and journalistic training (categories b+d; 36.73%). Another 12.24% (category c) have only scientific training, and 14.28% (categories e+f) have neither journalistic

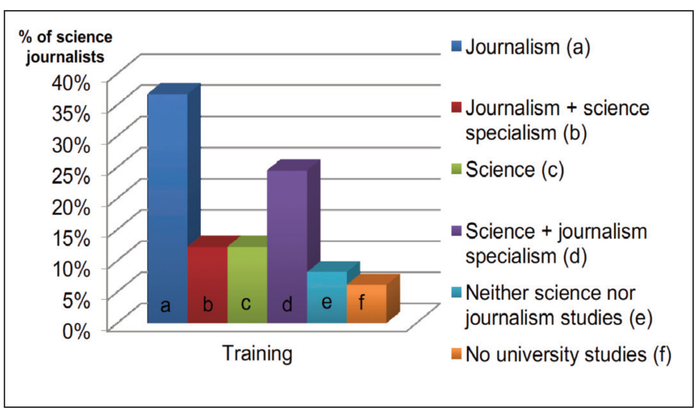

Figure 1. Profile of the Science Journalist in Spain.

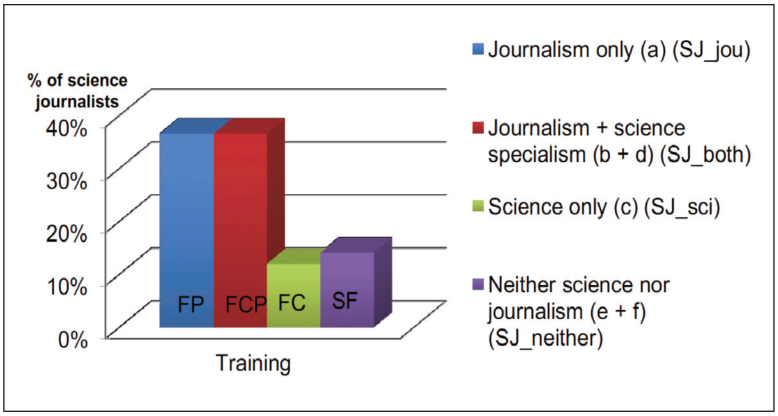

Figure 2. Academic Background of Spanish Science Journalists.

nor scientific training. We, therefore, identified four main groups of science journalists in Spain based on their academic training (Figure 2):

- With only journalism training (SJ_jou).
- With only science training (SJ_sci).
- With both journalism and science training (SJ_both)
- With neither scientific nor journalism training (SJ_neither).

Analyzing these data from the perspective of non-exclusive categories, it can be observed that journalism training takes precedence over science training among our informants: 73.46% (a+b+d: SJ_jou + SJ _both) had some journalistic training, whereas only 48.97% (b+c+d: SJ_sci + SJ_both) had some science training.

3.2. Ideal academic profile for science journalists

One of the most surprising results from both the surveys and the questions asked in the interviews and focus groups was that most science journalists in Spain do not consider a science education to be necessary to exercise as a science journalist. Thus, 59.1% of journalists disagreed or strongly disagreed with the statement: 'To be a good science journalist it is increasingly necessary to have a degree in science' (Figure 3).

Breaking down these data according to training, disagreement was greater among those who received only formal training in journalism, 68.1% of whom believed that science training is not necessary. However, even among the science journalists who received both journalism and science training, science training was considered of secondary importance: 47.1% did not believe it to be necessary, whereas only 29.4% considered it necessary (Figure 4).

In contrast, of the science journalists with formal training only in science (just over 12% of the sample), 75% consider science training to be necessary. Finally, not a single science journalist with no training in either science or journalism (just over 8% of the sample) believed that scientific training was necessary.

For the in-depth interviews, the results were similar. In response to the question 'What is the ideal academic profile for a science journalist?', 48.97% of informants said that journalistic training was essential, whereas only 28.49% indicated that scientific training was necessary.

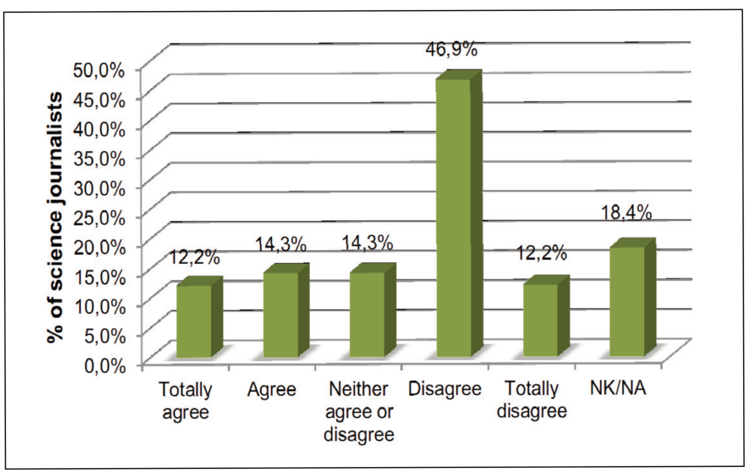

Figure 3. Value of a Science Degree. Responses to the Question 'To Be a Good Science Journalist It Is Increasingly Necessary to Have a Degree in Science'.

3.3. Learning on the job

The above results coincide to a large extent with the conclusions drawn from the focus groups, although with some nuances. For instance, although science journalists did not consider science training to be essential to exercise the profession, they did acknowledge the importance of mixed training and specialization, which could, however, be obtained through experience on the job.

A clear majority of the science journalists considered the experience gained on the job to be more important than academic training, emphasizing the fact of being able to learn from prestigious and experienced professionals.

Although scientific training was relegated to a secondary role by most informants, half (51.02%) proposed training in both areas – not necessarily academic training, but (as has previously been pointed out) acquired through work experience in journalism or science. Reproduced below are some responses that reflect this thinking (SJ followed by a number refers to the science journalists in our sample using an internal code that ensures their anonymity):

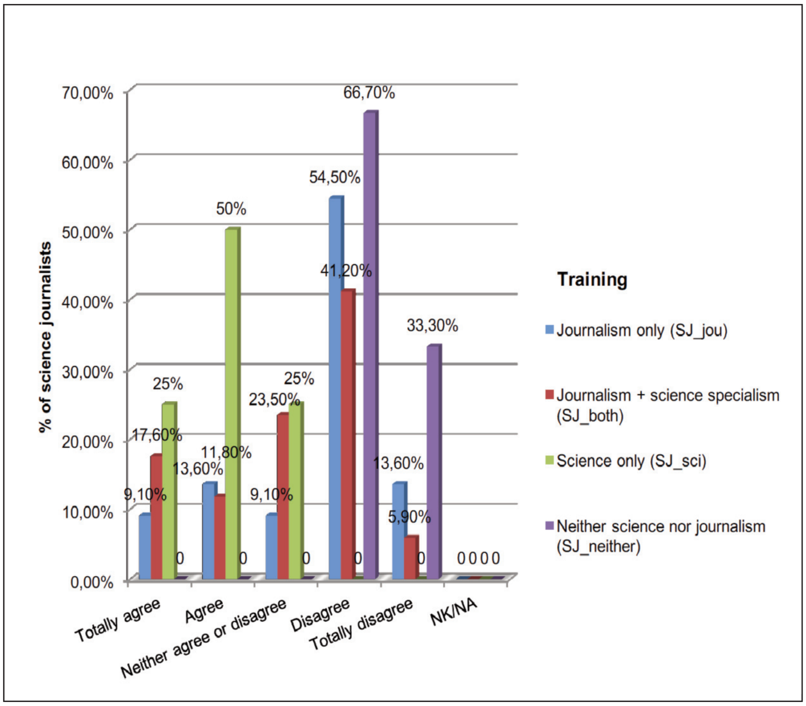

Figure 4. Value of a Science Degree. Responses to the Question (According to Respondent's Training) 'To be a Good Science Journalist It Is Increasingly Necessary to Have a Degree in Science'.

"You do not have to have a degree in journalism to exercise the profession. This is learned from practice and attitudes. Having a science degree helps a lot to understand many things, but since science covers many different knowledge fields, a physicist and I are in exactly the same position when faced with zoology. What is really important is attitude and experience" (SJ18).

"I believe that having a science background helps, but I would like to demystify this. It helps not to be afraid of science (...), but the science journalist is not trained at a university. Three years of intense professional activity and you have a good science journalist" (PC22).

These positions are inevitably linked to a criticism of academic journalistic training, and a defense of learning on the job, as reflected in almost half of the responses and also in the focus group discussions. Thus, many informants referred to skills they rate as essential, including "intellectual curiosity" (SJ43), "being interested in science" and "having clear ideas and being focused". (SJ33). Other similar or related comments were as follows: "You don't have to have scientific training, but you do have to be generally knowledgeable" (SJ39); "Experience shows that journalists are good when they can manage the tools of the trade" (SJ26); "The key is to do the job well and, to do that, you don't need to be either a journalist or a scientist, as you can do well coming from either field" (PC37); "Journalism is an art, it's not something that's learned by studying" (SJ1); and "I am one of those disillusioned by journalistic training, I think that journalism can be learned on the job" (SJ2).

3.4. Improving training

Journalists conceded (directly or indirectly, in the surveys, interviews and focus groups) that there were deficiencies in their academic training. The closed-question survey results indicate that 73.4% of the informants believed that university journalism and communication faculties do not pay enough attention to science journalism; furthermore, a mere 6% of the informants believed that the necessary importance is attached to science journalism (Figure 5).

Just over a quarter of the informants (26.53%) specifically stated that the level of scientific knowledge is low in newsrooms, where science topics are often covered by generalist journalists without specialist training.

"There are deficiencies regarding a lack of knowledge of the scientific method, research procedures, clinical trials... Science does not prove anything, it discards or proves hypotheses, and [science journalists] sometimes do not understand this" (SJ42).

"We take what we read in journals at face value. It would be a good thing if the journals were afraid if they thought 'reading is now more critical'. We need to stop believing that everything a scientist says is the truth. Nothing is 100% proven, there is always uncertainty, and that is not explained to readers either. Everything needs to be set in context" (SJ36).

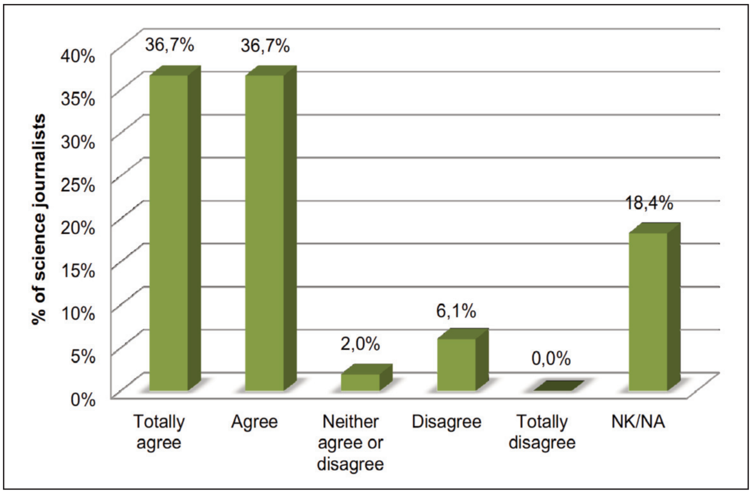

Figure 5. Attention Paid to Science Journalism at University. Response to the Question: 'Journalism and Communication Faculties Do Not Pay Sufficient Attention to Science Journalism'.

As for how to overcome the shortcomings of training, around half of the informants, referred to scientific training in the form of offering elective subjects and postgraduate or master's courses and including or reinforcing the subject of science journalism: one respondent went even further, indicating that "science and technology should be mandatory in the curriculum" (SJ14).

Furthermore, 18.36% of the informants believed that the deficiencies in science journalism training are shared by all journalism specialties and that, consequently, improvements in training should be aimed across the board.

However, while the majority do criticise training, there is a clear minority of science journalists who have more positive opinions of the existing training, and focus their criticisms on other aspects. Thus: "The problem is not training but the lack of work. You only have to see the number of people with a master's out there" (SJ25).

In fact, a considerable number of the science journalists went off the main topic (training) to criticise working conditions, thereby displacing the problem to one of the work settings. The panorama described is one of a wide variety of topics and areas to be covered, the impossibility of specializing properly and, directly related, low pay, and a lack of time. These would point to a precarious work situation for science journalists, who have to write many articles, are unable to do thorough research and, in short, have many limitations on rigorously fulfilling their information function.

"It's not so much an academic as a working conditions problem. The situation is very precarious (...) very few science journalists are on a payroll. If you are poorly paid and have to write on many different topics, then that's more a source of error than training. There are journalistic tools that compensate, but if you have little time, quality will suffer" (SJ3).

4. Discussion and conclusions

As the results of this research show, the profile of the science journalist in Spain is complex and heterogeneous. While the academic backgrounds of active professionals are very different, university journalism or communication degree is the most common background. Significant is the fact that while 73.46% of professionals have some journalistic training, only 48.97% have received some scientific training. Just over a third of science journalists have mixed training in both areas. Mixed training, in fact, is considered to be the most suitable profile, even though journalistic training continues to be considered more important than scientific training.

Most science journalists in Spain not only do not have science training but also do not consider it necessary, with almost 60% of the informants of the opinion that a science qualification is not necessary to exercise as a science journalist. Even more revealing is the opinion regarding whether a scientific qualification is necessary to exercise as a science journalist: most (75%) of those with only scientific training, but only 22.7% of those with only journalistic training, considered this necessary. Among those who received both kinds of training, only 29.4% consider it necessary, whereas none of those with no academic training in either journalism or science consider it necessary. Therefore, the more scientific the profile of the journalist, the more value is attached to science training, and vice versa.

The little value that is attached to scientific training for journalists is surprising since scientists indicate that it is precisely the lack of a scientific background that generates distrust towards their work. The science journalists also acknowledge deficiencies in training and the need to be more critical and analytical regarding sources and information. Corroborating both Murcott (2009) and Rensberger (2009), they also suggest the need to foster a more critical role among science journalists regarding questioning, not only scientific findings but the entire scientific process.

Along the same lines, it is interesting to note the dissonance between the ideal and real profiles of science journalists in Spain. According to our sample of science journalists, while journalistic training is more important than scientific training, complementary scientific training for journalism graduates is also fundamental. The ideal profile, therefore, is that of the journalist trained in communication who has received further training in science; the reality is, paradoxically, that only a small minority (12.24% of our informants) have this profile.

Three other conclusions drawn from the study further explain the above paradox and refer to factors with a bearing on the quality and kind of training.

First, it is evident that the journalists attach great importance to ongoing learning and the experience and knowledge that can be acquired outside academia. For many, the best training for a science journalist is on-the-job learning.

Second, the journalists criticize university training for journalists in Spain. A considerable number suggest that specific training in science journalism should be acquired through elective subjects taken as part of the undergraduate degree or through a master's degree. In fact, fully 73.4% of the journalists in our sample consider that Spanish journalism and communication faculties do not attach sufficient importance to this specialty.

Third, many journalists place the spotlight, not on academic training, but on working conditions in Spain: low pay, lack of time and general employment precariousness hinder in-depth investigation, specialization, and further training. This last conclusion corroborates those of previous studies in Spain that document how newsrooms have undergone a profound transformation in recent decades, with many veterans and experienced journalists replaced by young, inexperienced or trainee journalists lacking the expertise to be able to tackle the complexity of science journalism (Cortiñas, Lazcano-Peña, & Pont, 2015).

Finally, regarding the future of the profession, most science journalists in our sample advocate the need to promote mixed or interdisciplinary profiles, whether through formal training or tutored work experience. For most of these journalists, on-the-job learning is the key to the development of a good science journalist. Nonetheless, it continues to be desirable for both academia and the media to invest greater efforts and resources in the training and growth of professionals capable of communicating science from a rigorous and critical perspective.

In universities, therefore, communication and scientific faculties both need to foster hybrid training, which could be done by including science topics (especially on the scientific method) in humanities degrees, and of writing and communication topics in science degrees, by offering science journalism electives in undergraduate degrees, and by offering master's degrees and specialist postgraduate courses to both journalists and scientists. Training good science journalists –more than a dilemma for ethnographers– is essential to the successful communication of science and to building a better society.

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Violence against Brazilian women in public and mediatic spheres

La violencia contra mujeres brasileñas en las esferas pública y mediática

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ABSTRACT

This paper explores the capacity of the media to incorporate controversies in circulation in the public sphere. For that, it is based on the analysis of a set of 607 news stories about violence against women in context of gender relations and proximity, collected in nine Brazilian media during the years of 2013 and 2014. Recognized as one of the countries with the highest rates of violence against women, in recent decades Brazil has passed laws aimed at protecting victims and aggravating the convictions of perpetrators, which were the result of intense debates promoted by feminists, researchers and others social actors involved in the guarantee of human rights. The collected news stories were published in the years immediately prior to the promulgation of the Feminicide Law, in 2015. Analyzed through a combination of methodologies, such as content analysis and narrative analysis, the collected news stories show that Brazilian news media are still little permeable to illuminating tendencies of violence against women as a result of gender relations, prevailing approaches that present them as routine and/or futile crimes. Therefore, the analysis makes it possible to perceive that the media are some steps behind the actions and debates that elevate this issue to a dimension of controversy, as those held in academic spaces, by feminist movements and other social actors in Brazil.

RESUMEN

Este artículo indaga sobre la capacidad que tienen los medios de comunicación para incorporar controversias que circulan en la esfera pública. Para eso, se basa en el análisis de un conjunto de 607 relatos periodísticos sobre violencias contra mujeres en contextos de relaciones de género y de proximidad, recolectados en nueve medios brasileños durante los años 2013 y 2014. Reconocido como uno de los países con más altos índices de violencia contra las mujeres, Brasil aprobó en las últimas décadas leyes destinadas a proteger a las víctimas y a agravar las condenas de los agresores, procesos que resultaron de intensos debates promovidos por feministas, investigadores y otros actores sociales comprometidos con la defensa de los derechos humanos. Los relatos recolectados fueron publicados en los años inmediatamente anteriores a la promulgación de la Ley del Feminicidio, en 2015. Abordados a través de una combinación de metodologías, como análisis de contenido y análisis de narrativa, los relatos periodísticos muestran a los medios todavía poco permeables al entendimiento de las violencias contra mujeres como resultado de relaciones de género, prevaleciendo enfoques de crímenes rutinarios y/o fútiles. Por lo tanto, el análisis hace posible percibir que los medios de comunicación están algunos pasos detrás de las acciones y debates que se dan en espacios académicos, por movimientos feministas y otros actores sociales que en Brasil se ocupan de este problema, elevándolo a la dimensión de controversia.

KEYWORDS | PALABRAS CLAVE

Violence, gender, media, narrative, public sphere, journalism, news, women.
Violencia, género, medios de comunicación, narrativa, esfera pública, periodismo, noticia, mujeres.

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1. Introduction

The many expressions of physical and symbolic violence against women have mobilized Brazilian society in significant ways in the last two decades. This includes discussions based on academic studies; on the militancy of different feminist groups, with perspectives that are not always coincident; on legal provocations seen in judgments led by many courts; on the actions of human rights organizations; on governmental programs; and on many others endeavors carried out by social actors and actresses. Abortion, rape, prejudice related to sexuality, race and economic stratum, murders in relationships of proximity or motivated by other gender dynamics and physical and symbolic violence are examples of issues that reach out Brazilian public sphere with different intensity-levels, as well as the multiple sensitization powers held by the media or by the mediatic public sphere (Gomes, 2008; Peñamarín, 2014).

Given its urgency, severity and complexity, gender violence acquires a clear status of a relatively long-lasting social controversy (Venturini, 2012). The intense debate that it has been generating within the Brazilian public sphere has even allowed the elaboration of two major laws. The "Maria da Penha" Law, from 2006, aims to curb violence against women by applying protective measures that, for example, alienate aggressive men and force them, when legally punished, to participate in-group dynamics to discuss violence against women and to develop means to avoid it (Blay, 2014; Beiras & Nascimento, 2017). A point that suggests its relation with the public debates about violence against women in the Brazilian public sphere is that the law was named after Maria da Penha Maia Fernandes, a woman who was, for many years, a victim of aggression by her husband. He tried to murder her and, in the end, made her a paraplegic. Since then, Maria da Penha managed to call up major sectors of the public sphere, whose pressures culminated in the approval of this legal instrument. There is also the Feminicide Law, from 2015, which qualifies murder crimes from a gender variable, leading to changes in the Brazilian Penal Code. The law includes feminicide among the "heinous crimes", an expression used in Brazilian Law to designate the crimes with the most aggravated penalties.

The social and political processes that led to the existence of these laws certainly continue until now, since their implementation requires behavior changes from the lawmakers, as well as a set of actions that involve the State and many social actors and actresses. Looking at their effectiveness, we can assume that the public debates about the implementation of these legal instruments have led, particularly in the case of "Maria da Penha" Law, to a reduction, albeit timid, in the cases of violence against women. The research data collected by the Instituto de Pesquisa Econômica Aplicada [Institute of Applied Economic Research] points out that elements like the available infra-structure for women victims of aggression care, the cultural disparities between Brazilian regions, and other variables, all interfere in analyzing the impact of the laws. Despite that,

We consider that the LMP [Maria da Penha Law] affected the behavior of aggressors and victims based in three aspects: 1) It raised the penalties for the aggressors; (2) It amplified empowerment and security conditions for victims to report; (3) It improved the jurisdictional mechanisms, allowing the criminal justice system to answer cases of domestic violence more effectively (Cerqueira & al., 2015: 32).

The battle against gender-based violence, however, is by no means coming to a disclosure and Brazil presents an alarming data on murders of women. According to the data compiled by Waiselfisz (2015), the country is the fifth in a global ranking of female homicides that includes 83 nations. Only El Salvador, Colombia and Guatemala (Latin American countries) and the Russian Federation surpassed the 4.8 homicides per 100,000 women presented by Brazil. These numbers are 48 times bigger than the ones observed in the United Kingdom, for example.

Another research, carried out by the Perseu Abramo Foundation and the Social Service of Commerce (Venturi & Godinho, 2013) in 2010, affirms that every two minutes, five women are beaten in Brazil. These numbers do not include death registers, but they help to enlighten the background of systematic violence in which the violence occurs. It is the same as saying that, by the end of each day, men in Brazil have injured approximately 3,600 women who lived together with them. Thus, it seems to us that understanding the complexity and the variety of the possible aggressions, as well as the connections between them, is decisive for comprehending gender violence and the murder of women, acknowledging that "femicide is the end point in the anti-female terror continuum that includes a wide range of verbal and physical abuse" (Pasinato, 2011: 224).

Facing such controversy, what role has the Brazilian media been playing? Is it effectively present or does it act in an elusive way, positioning itself distant from public debates and other agents in the public sphere? International literature on the subject (Berns, 2001; 2004; Bullock & Cubert, 2002; Lloyd & Ramon, 2016; Richards, Kirkland, Gillespie, & Dwayne Smith, 2011; Simões, 2011; Simões, 2007; Taylor, 2009; Nettleton, 2011; Ryan, Anastario,

& Da-Cunha, 2006) signalizes some recurrences employing different methodologies and analyzing the unique realities of each country some recurrences. Among these recurrences, we highlight: the understanding of gender violence as something private and non-concerning to the public sphere and public policies, cases being handled in a decontextualized way (often set up as either tragedies or common events), the lack of attention to intersectional aspects like class and ethnicity (a certain privilege for the aggressors, either by the concealing of their responsibility which is often under the rhetoric of a "crime of passion"), or by reaffirming myths and stereotypes about women. These are following the idea of "the good victim" (the mother-woman who works and has a regulated sex life). Although in some countries, we can find evidence suggesting an improvement in this approach, the scenario indicates that, at least in Western countries, sexist and patriarchal values are still being reinforced by media agents (Comas-d'Argemir, 2014; Gillespie, Richards, Givens & Smith, 2013; Gius & Lalli, 2014; González, 2007, 2010; Simões, 2011; Wozniak & Mc-Closkey, 2010).

In this article, we seek to identify and reflect on the role of Brazilian media on this subject, considering that studies with different propositions, such as the ones from Pasinato (2011; 2012; 2014), Waiselfisz (2015), Carvalho and Martins (2016), among others, show us a lacunar and fragmented nature of the media coverage of gender violence. From these analyses, we ask whether gender violence is effectively a relevant issue for Brazilian media agents. In search for answers, we monitored the coverage of cases of gender-based violence in 9 Brazilian media between 2013 and 2014. The collected data suggests a contradiction: on the one hand, the media commonly report murders, rapes, assaults and other manifestations of gender violence, mainly the physical ones; on the other hand, the report of these events has not recognized or at least has not problematized, its gender component. Thus, we cannot say that cases of gender violence are absent from Brazilian media coverage, but neither can we assume that the controversy to which they are linked, and that mobilizes Brazilian public sphere is fully contemplated.

> Not only the assassinations, but themes such as gender hierarchies, abortion, the impact of Brazilian laws for women protection and punishment of the aggressors are almost completely ignored in these stories, even though they refer directly to these and other situations of physical and symbolic violence against women, which, we emphasize, are present in debates and controversies that circulate in the public sphere.

One way to attain a more precise description of the femicides phenomena as triggered from journalistic narratives is by using the notion of crime of proximity (Antunes, 2016; Carvalho, 2014; 2016; Carvalho & Martins, 2016; Leal, 2014; 2016). We propose the use of this expression to investigate issues related to gender violence by focusing on trust relations that occur in complex societies. It is true that, maybe more because of small concern in identifying their particularities so far, than for any other reason, crimes of proximity are still pretty much associated to the so-called crimes of passion, which are investigated with more diligence.

Every crime of proximity is subject to contradictions: it is committed by those who are linked (in an emotional way, but not only) by bonds of trust. After all, social coexistence and physical proximity (in family, at work, in public places etc.) in complex and risky societies (Giddens, 1991; Beck, 1997) happens among social connections that involve work, school, religion and other associative contexts, including contact with people working with deliveries, domestic repairs, employees of energy and telecommunication companies, police officers, bus drivers and others. Assuming either the perspective of trust in expert systems, as proposed by Anthony Giddens, or the notion of circumstances imposed by a risk society, according to Ulrich Beck, we live in a time that forces us to expand our ways of living together. But above all, we have to trust on the actions of others (anonymous or not) to exist in society (Luhman, 1996; Quéré, 2011), which makes trust, as Niklas Lhumann says, some of "social inevitability". This way, the crime of proximity concept exposes elements of disruptions in social trust and, besides that, it shows that violence against women is not restricted to domestic space, thus avoiding some conceptual problems related to the crimes of passion.

2. Public sphere, media and the formation of controversies

We believe that comprehending informative media's every day approach to crimes involving violence against women is a key factor for the subject to be publicly recognized. How gender-based violence is reported is mean to set up visibility for such occurrences, even though it implies the opacity and invisibility of some aspects that are pivotal within the public sphere (Easteal, Holland, & Judd, 2015; Gámez-Fuentes, 2012).

Controversial as to its heuristic potentialities, the concept of the public sphere has been fundamental to identify how political, economic and behavioral issues, among others, circulate and are socially signified. Although fractured, the concept of public sphere can enlighten what constitutes a problem in a particular society and how different frameworks are applied to this problem. Following the seminal works of Jürgen Habermas, Wilson Gomes notices principal changes in the concept of public sphere over time, particularly to what concerns the differentiations between public and private domains.

> Brazilian informative media seems to operate as a visibility locus that reiterates violent ways of dealing with the issue, not necessarily linking cases of violence against women to gender relations. Moreover, we can notice that media considered to have greater popular appeal exploit the cases of murder and aggression with more emphasis than the proclaimed journalism of record. It is also noticeable that journalistic interest is based on a social perception that violence against women, in a context of intimacy relations, acquires relevance as it leaves a supposed dimension of the private or of the home intimacy and begins to involve other institutions at the time of the murder, like the police. It is important to observe that feminist groups and members of Law and Health operators and from many others governmental and nongovernmental agencies, people that fight against gender inequality in Brazil, they rarely appear as sources of information for the coverage of crimes of proximity.

Historically, the modern public sphere establishes itself in a set of relations with other institutions and spheres that are typical to the modern way of life. In order to understand the changes in the public sphere, it must be outlined in contraposition to other institutions and spheres, considering the historical context of its formation. Among a lineage of Habermas' readers (2010), it seems to have been established a belief that the public sphere encloses everything outside the domestic, family, and intimate spheres (Fraser, 1992: 110). The contrast exposed here is merely between what is public and what is private (Gomes, 2008: 42)

From this perspective that contrasts the domestic sphere, or intimacy sphere, with the public affairs and non-private sphere, it is necessary to remark that when we talk about physical and symbolic violence against women, the strategies for making them public consist in a key mechanism for actions that confront its motivations and consequences. That said, one of the challenges that must be faced is the overcoming of what scholars (Debert & Gregori, 2008; 2016; Biroli, 2010; 2016; Segato, 2012) indicate as one of the gender hierarchy modes in sexist and misogynist societies: what concerns to men naturally belongs to the public sphere, such as the business or State affairs, or any other great issue; meanwhile, to the women, the reserved space is restricted to home, to the housework, to taking care of the children, cooking, etc.

Consequently, for women, to bring their demands to the public sphere is a way of empowerment, which nowadays assumes the search for visibility in the media's public sphere as well. It also represents potential means for social learning on controversial subjects, because it addresses those social problems that are part of a struggle with understandings and practices that already are greatly disseminated in common sense, behavior, and performances. These social practices and traditional ways of understanding must be overcome to allow the rise of new dynamics that, talking specifically about gender relations, hierarchies, prejudices, exclusion and other devices that represent physical and symbolic violence, will make possible the recognition of absolute equal rights.

It is also important to remember that there is not necessarily a continuity between the public sphere and the public media sphere. It may be more common to find divergences between them, or clear discontinuities when one or more media categories make the debates in the public sphere invisible. For our analysis, we take the postulations of Rousiley C. M. Maia as the reference, noting that she is interested in the political debates' dimensions and the influence exerted by the media in deliberation processes. In her words, [w]e start from the premise that the media play an ambiguous role in pre-structuring the political public sphere. In certain situations, media agents can mobilize not only relevant political issues, but also the required information and the appropriate contributions for effective public debate. In other situations, they may, to the same extent, ignore or trivialize important political issues, obscure or distort information, exclude or delegitimize the voice of certain actors as they favor and advocate for the benefit of others (Maia, 2008: 201).

We are interested in reflecting upon the ambiguities of the media public sphere in the way they bring to light or hide events related to physical and symbolic violence against women, particularly in the so-called crimes of proximity. Therefore, we leave aside other constitutive aspects of the reality of what has been denominated media public sphere. However, a brief reflection on the notion of controversy is necessary.

Tommaso Venturini's thoughts on the cartography of controversies point to elucidating ways of understanding how coincidences, cleavages, and contradictions occur in the ways gender violence against women is seized in journalistic media, that are the subject of our analysis here, and in Brazilian society. Venturini says: "[a]ccording to the cartography of controversies, public debates (vaguely defined as situations where actors disagree) constitute the best settings for observing the construction of social life. In controversies, actors are unremittingly engaged in tying and untying relations, arguing categories and identities, revealing the fabric of collective existence" (Venturini, 2012: 797).

The public sphere, media public sphere, and controversies form three conceptual dimensions that will help us analyze the corpus of journalistic narratives we collected. They will allow us to understand how the intersections between the public sphere and media public sphere are given or avoided, and what consequences do they bring to the amplification or reduction of controversies.

3. Methodology and results

In an effort to understand the role that informative media performs in the public establishment of gender violence, we followed the stories published by nine Brazilian informative media throughout 2013-2014. What we collected comprises eight weeks of news, the result of nine months of data gathering. To monitor the daily coverages, we divided the media into two different groups: a local one, based in Belo Horizonte, Minas Gerais, and a national one, with nationwide coverage. Our choice to look at the local media is justified by their closeness to "small events" of gender violence, the ones that could be more difficult to grasp. On the other hand, national media could be used to establish a counterpoint to the local witnessing, at the same time relativizing and contextualizing them.

The chosen media were Brazil's best-selling local newspaper; Belo Horizonte metropolitan area's most-listened radio news program; a traditional newspaper of Belo Horizonte metropolitan area; two newscast locally broadcasted, focused on regional coverage; an online news website with Belo Horizonte metropolitan area coverage; the most-watched newscast in Brazil, with nationwide coverage; the two most visited news portals in Brazil.

Data gathering and indexing were done in the period from May 2013 to February 2014, based on the following parameters:

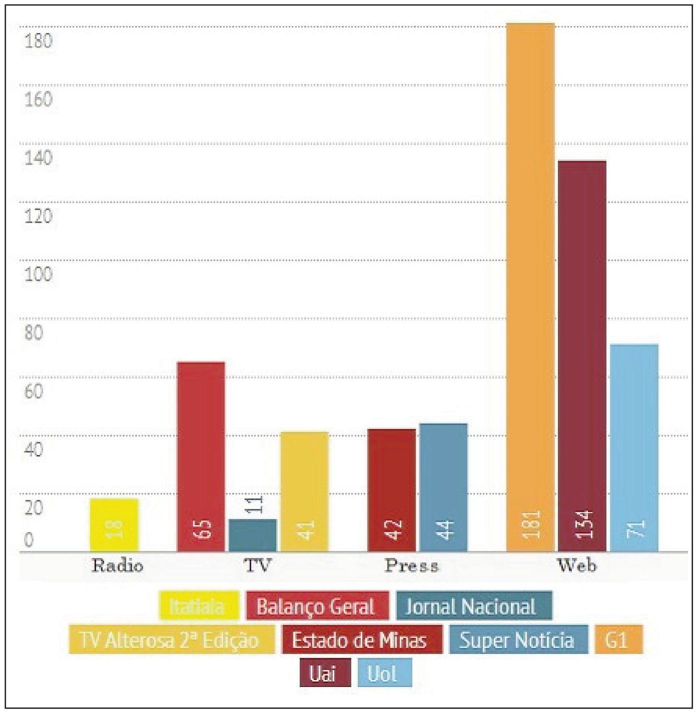
a) Daily reading of the newspapers in selected weeks, including all its sections.

b) Accompanying the websites and portals three times during the day: morning (around 10 am), afternoon (around 3 pm) and night (around 8 pm). We chose these schedules in an effort to keep up with the constant updates that are typical of these media, as well as the daily flow and the production time of the news.

c) The newscasts and news hour programs were recorded during their broadcasting.

The work resulted in 607 collected stories, which are now part of an online database, organized as shown in the graphic.

All 607 collected texts were properly indexed in an online database, which allows that they are accessed and organized by general variables. Since 2014, this database has been regularly analyzed by following two major guidelines. The first one consists an effort to describe, from general variables, recurrent aspects of media coverage. This guideline includes the studies that seek to investigate unchanging factors that refer to the nature of the media (press, audiovisual, etc.), its editorial line (whether they're "of record" or "tabloids") or its scope (local or national). The second one is formed by case studies, in which textual, discursive and narrative aspects of specific stories are contemplated, with the objective to apprehend, on the textual surface, contradictions and particularities. This collection of analyzes allows us, so far, to at least glimpse the role of Brazilian informative media in the controversy over gender violence. And this role is not that positive.



Graphic 1. Stories by informative media.

Journalistic coverage in Brazil is characterized by reports of the occurrence of several violent crimes against women, with the media work routine oscillating between the coverage of events that show great repercussion and the daily coverage that consists in small notes about homicides. Much of this coverage is dedicated to the death of women victims of what we are calling crimes of proximity. If the events of great concern provoke a strong interest for analysis due to the dynamics they establish in the social texture, even interrupting the informative media's routines, the "small deaths" of women in journalistic reporting have been receiving an approach defined by the idea of register, according to the typological qualification and the analysis of the type of coverage that is carried out by the media (Leal, Antunes, & Vaz, 2012).

Web portals presented the majority of violence records, more than half of the reports, effectively functioning as some cases repository. These narratives hardly exceeded the information provided by police records. Another important aspect is that the informative media that focus on sectors that are more "popular" were the ones where, proportionally, we found the highest number of cases of violence against women registered.

A careful observation of the data also allowed us to perceive that the news presented a disparity, depending on which informative media they originate from, between the proportion of cases of women deaths and other episodes of violence. Murders are the most visible events under a perspective that focuses on the typical relations of violence in which the man in a proximity relationship to the female victim is the person who will answer for the crime. Intimacy appears then as a key context to define these homicides. In the news about crimes of violence against women, what we see the most are episodes defined by violence in emotional relations. It is noteworthy that aggressions happen both throughout the relationships and after their end, and one of the reasons most often indicated by the media as the cause of violence is precisely the non-acceptance of the breakup by the men. If journalistic interest follows this preference, only a thoughtful analysis of other elements and the published or broadcasted narrative will allow us to discuss how these deaths appear as "a natural consequence" of the "intimate relationship", a result of violence dynamics that goes by different tension cycles in the relationship. In any case, we can also observe that journalism's interest is based on a social perception that violence against women, in the context of intimate relations, acquires relevance when it leaves a supposed private dimension of the intimacy of people's homes. The presence of other institutions, like the police, among other factors, makes a decisive contribution to the rise in the attention to the murders.

4. Conclusion

Based on the analysis of the collected data, the primary assumption is that the news presents the events closed in themselves, without connection to its causes and consequences, with a narrative that turns itself mainly to the portrayal of the "crime scene". In most cases, this portrayal is made according to the perspective offered by the police, ignoring consequences and, often, the path that women go through when they seek help. By reading the journalistic reports, we still find little permeability to issues under tension and controversy in the public sphere. It is significant, considering this, that the discussions that led to the Feminicide Law in 2015, which also occurred in previous years, were completely absent from the coverage of everyday cases of violence against women, including murders. Not only the assassinations, but themes such as gender hierarchies, abortion, the impact of Brazilian laws for women protection and punishment of the aggressors are almost completely ignored in these stories, even though they refer directly to these and other situations of physical and symbolic violence against women, which, we emphasize, are present in debates and controversies that circulate in the public sphere.

In our view, at the present moment, thanks to the type of coverage that is being carried out, Brazilian journalism acts as part of what some authors (Meneghel & al., 2011; Sagot, 2000) call a "critical route", in which the establishment of revictimization processes becomes more common, especially in care services and in those related to the police and the judiciary (Pasinato, 2012). Journalistic narratives are far from incorporating the comprehension of causes that prevent women from abandoning the cycle of violence, both the so-called internal causes – the feelings present in the situation –and the external ones– that correspond to how such causes are socially recognized (Sagot, 2000). In this case, there is a perception that the problem of women in situations of violence refers to something "private", that is not proper to debate and public solution. Thus, Brazilian informative media seems to operate as a visibility locus that reiterates violent ways of dealing with the issue, not necessarily linking cases of violence against women to gender relations. Moreover, we can notice that media considered to have greater popular appeal exploit the cases of murder and aggression with more emphasis than the proclaimed journalism of record. It is also noticeable that journalistic interest is based on a social perception that violence against women, in a context of intimacy relations, acquires relevance as it leaves a supposed dimension of the private or of the home intimacy and begins to involve other institutions at the time of the murder, like the police. It is important to observe that feminist groups and members of Law and Health operators and from many others governmental and nongovernmental agencies, people that fight against gender inequality in Brazil, they rarely appear as sources of information for the coverage of crimes of proximity.

Even though our corpus of journalistic narratives in the studied media has indicated little openness to incorporating a more diverse group of social actors and actresses –which is also a symptom of the recurrence of police authorities' statements– the controversies are not completely absent in the news about physical and symbolic violence against women in gender relations. As we tried to show with the opinion polls on violence against women, the controversies involving gender relations, murders and various forms of symbolic depreciation indicate, in Brazil, just as the statistic data on the violence decrease after the approval of legal instruments does, a kind of cartography of controversies whose outlines are not always too precise. Contradictions, differences, and the actions of organized groups, especially the feminists, are the tip of an iceberg to be discovered in further analyses, considering that our main goal here was to draw a universal "map" of the problem.

As a consequence, what stands out from the collection of journalistic narratives that compose our corpus is a thin presence of debates that could locate gender violence against women regarding well-formed and/or sustained controversies by the news media as part of the media public sphere. As Peñamarín (2014: 117) reminds us,[t]o the debate about information and public sphere is important to observe that the great issues that have been incorporated to public debate in the last decades of XXth century –such as ecological, feminist, antinuclear movements and those geopolitical– were introduced by subject that were outside the official public sphere (external to the media and political institutions, as points out Habermas (2010: 199) These subjects and political movements have not been limited the debate within the common shared places, but precisely one of their fundamental objectives was to put those borders in question, together with the own limits of the public sphere, in order to propose the inclusion in the debate of new objects, new subjects and systems of meaning (Peñamarin, 2014: 117).

Another dubiousness found in Brazilian media, considering the coverage of gender violence against women refers to, taking into account Peñamarín's propositions, a hesitant role between being a plural public space that could indicate the drama of gender hierarchies as violence builders, and approaches that, in the strict limits of journalistic narratives, are often presented as common crimes or crimes of passion. In this sense, it is possible to perceive that the media are some steps behind the actions and debates that are taking place in academic fields, feminist movements and other social actors and actresses that deal with this problem in Brazil, elevating it to the dimension of a controversy (Venturini, 2012).

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Advocacy of trafficking campaigns: A controversy story

Incidencia política de las campañas contra la trata: Un relato controvertido

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ABSTRACT

The construction, visualization and stabilization of public problems require the mobilization of civil society groups concerned about these issues to actively engage in the demand for actions and policies. This paper explores the institutional campaigns against human trafficking and sexual exploitation in Spain between 2008 and 2017 and their role in helping to shape this issue as a matter of public concern. Our aim is to identify the ideological basis of these campaigns through their representations of predominant actors, which have been systematized to identify possible mistakes and to help determine more effective actions with a greater capacity for mobilization. We applied a mixed content analysis combined with a semiotic model to evaluate the presence or absence of the different actors and their relevance in each case. Several lines of discourse have been reiterated accross the 50 campaigns analysed: Curbing the demand for prostitution as a priority objective; the centrality of victims in the representations; the role of the consumer of paid sex as an accomplice to the crime; and the correlation between prostitution and human trafficking. We will also examine how these issues relate to the broader dispute on the status of prostitution in Spain. This will require a conceptual shift away from educational and social-oriented communication towards the structural causes, collective responsibility and transformative justice frameworks.

RESUMEN

La construcción, visibilización y estabilización de un problema público requiere de la movilización de colectivos ciudadanos interesados en el asunto, que actúen como un ente activo en la reclamación de acciones y políticas. Este artículo analiza las campañas contra la trata de personas con fines de explotación sexual en España (2008-2017) desde su contribución a la conformación de esta cuestión como un problema de carácter público. El objetivo es identificar los ejes ideológicos desde los que han operado estas campañas, a través de las representaciones que se han sistematizado de sus protagonistas para identificar posibles errores y orientar acciones de mayor eficiencia y capacidad movilizadora. Se ha aplicado un análisis de contenido mixto complementado con un análisis semiótico, considerando la presencia o ausencia de los distintos actores y su mayor o menor protagonismo en cada caso. En las cincuenta campañas analizadas se constata la reiteración de varias líneas discursivas: la prioridad en desincentivar la demanda de prostitución, la centralidad de las víctimas en la representación, la figura del demandante de sexo de pago como cómplice del delito y la equiparación de prostitución y trata. Son discursos que intervienen en una controversia más amplia sobre el estatuto de la prostitución en el país y que necesitan reorientarse, desde la educomunicación y la comunicación con fines sociales, hacia las causas estructurales, la responsabilidad colectiva y la denuncia transformadora.

KEYWORDS | PALABRAS CLAVE

Social advertising, institutional campaigns, controversy, prostitution, sexual explotation, trafficking, public sphere, public affairs.
Publicidad social, campañas institucionales, controversia, prostitución, trata, explotación sexual, esfera pública, asuntos públicos.

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1. Introduction

In the last decade, trafficking in women and girls for sexual exploitation has become symbolically institutionalised in Spain as a phenomenon that exemplifies the global gender inequalities and requires greater social attention. This issue is recognised today as a public problem (Gusfield, 2003) that reflects shared social unrest that requires institutional intervention: legislative changes, specific public policies and communication actions to raise public awareness, among others (Cefaï, 2012; Schillagi, 2011; Dewey, 2004).

In order for sexual exploitation to become a problem of this nature, certain conditions had to be met: the existence of associated collective discontent and suffering, consensus on its importance, the work of specialists in the issue, appeals to the state to address the problem, and the existence of convincing indicators and categories that set the issue as a concern in different public arenas (Kessler, 2015).

The particularity of the issue as an (inter)national problem lies upon its connection to the -still open- controversy on the legal status of prostitution (Gimeno, 2012; Saiz-Echezarreta, 2015; Andrijasevic & Mai, 2016). In the different spaces in which the issue is mentioned and discussed, participants tend to question the stories that point to the consensus and highlight the dichotomous confrontation that characterises this discussion, largely polarised between those that advocate for its abolition and those who defend sex work (Gimeno, 2012; Pajnic, 2013).

Social movements, organisations, and institutions of different governmental levels have increased their discursive efforts to influence current and future policies (Second National Plan against Sexual Exploitation, 2015-2018, and Anti-trafficking Law, respectively) and raise public awareness of this crime. This has led to a scenario where public action initiatives that aim to make trafficking an issue of top priority in the public agenda have incremented exponentially, without solving the disagreement.

As part of a wider research project on the construction of public problems in the mediated sphere, this article analyses how effective institutional advertising is to spread awareness about the phenomenon of sexual exploitation and to enforce a perspective on it through the use of the basic persuasive mechanisms of social advertising: raising of public awareness, symbolic condensation, and emotional intensity. In essence, the article examines how the campaigns carried out by Spanish public administrations between 2008 and 2017 mobilise discourses based on consensus and orient narratively the controversy, proposing a hegemonic narrative (Terzi & Bovet, 2005; Peñamarín, 2014; Arquembourg, 2011).

Social advertising, linked to educommunication and communication for social change, has a positive influence when it is developed in a strategic, systematic and responsible way; when it prioritises the purposes and efficiency beyond the objectives and efficacy; and when it refers to a scrupulous ethical framework (Alvarado, De-Andrés, & Collado, 2017). In the institutional case, a specific regulation prohibits those communications that "aim to eulogise the government's work" to ensure they serve the citizenry "and not those who promote them" (Statement of Intent, Law 29/2005 on Advertising and Institutional Communication).

The progressive increase in campaigns indicates that sexual exploitation has become a critical issue of advocacy at the global and hyper-local levels. Thus, it seems imperative to impose here what Gozálvez and Contreras (2014: 130) call "the civic duty" of educommunication, its "ethical, social and democratic undertone related to the need for citizen empowerment in mediated issues".

These campaigns are the continuation of the strategy initiated for the prevention of gender violence at the state level in 1998, which has persisted despite the budgetary constraints derived from the crisis. The Second Comprehensive Plan Against Trafficking contemplates campaigns as preventive measures to prevent irregular immigration in the countries of origin (Nieuwenhuys & Pécoud, 2007) (measure 21), as well as other actions aimed at discouraging demand for sexual services, especially among young people (measures 6 and 7).

Campaigns to raise public awareness of trafficking are currently being carried out from above: non-mobilised citizens are informed by media products and institutional materials. This institutionalised action seems to be a drift of the awareness-raising work and the success of the advocacy of (inter)national lobbies for the abolition of violence against women in the domestic field, a common strategy in European countries (Devillar & Le-Saulnier, 2015).

Interesting perspectives on this phenomenon examine whether these campaigns are promoting a consensual hegemonic view of the problem, or whether there is room for dissent; and whether the provided information and viewpoints allow for better understanding of the problem or, on the contrary, reinforce stereotypes and unquestioned common places, despite their lack of explanatory capacity and relevance, as it was the case with previous campaigns (Fernández-Romero, 2008; Núñez-Puente & Fernández-Romero, 2015).

The representation against sexual exploitation exceeds this problem since its discourses affect the social-sexual order and the (de)legitimation of certain subjects, practices, desires and models of public and political action (Von-Lurzer, 2014; Sabsay, 2009). The discourses on sexuality, as well as its traditions, dispositions, habits and uses», in the words of Sabsay (2009: 10), "are not limited to reproducing an already given hierarchy of social and sexual identities. On the contrary, this 'representation' space elaborates and produces 'performatively' its social modeling effects".

Media representations are spaces where categorisations, power relations, and practices are put into play. The scenarios in which they are disseminated, tend to be intertwined; and each type of genre (informative, advertising, fictional) that promotes them acquires meaning and makes sense in its bonds with the others. This inter-discursive space, as an interpretation framework, is especially relevant for advertising given its extreme symbolic condensation. The slogans, mottos, and images that appear in an ad can be read because the public use common encyclopedias to fill in the spaces and make the necessary connections to understand the texts and insert them into a coherent narrative about certain realities (Peñamarín, 2014; 2015).

After a decade, it seems necessary to review the work that has been done regarding institutional advertising in Spain, to set the agenda, inform, raise awareness and prevent trafficking, establishing a first diagnosis that reveals the successes and errors of a discourse that needs to be further developed. It is a pending review that has been already carried out in the Anglo-Saxon world (Andrijasevic & Anderson, 2009; O'Brien, 2013; 2015).

> The analysis of the institutional campaigns launched in Spain against trafficking for sexual exploitation reveals the awareness-raising but reductionist role they have had in the last decade, which demands the incorporation of the approaches of social communication and educommunication to produce a discursive and representational shift that helps citizens to better understand the structural complexity of the problem and encourages them to get involved in the solution.

2. Materials and methods

The methodological proposal guiding this general research project is a combination of ethnographic techniques and socio-semiotic discourse analysis, which has demonstrated to be effective to "follow conflicts" (Marcus, 2001; Terz & Bovet, 2005) and to analyse controversies about public problems (Venturini, 2010). The "follow the conflict" strategy (Marcus, 2001: 120) consists in tracking the location of the different groups or parties involved in a conflict, "examining the circulation of cultural meanings, objects, and identities in a diffuse time-space" (Marcus, 2001: 111) where their discussion takes place, and usually at the same time in areas of daily life, legal institutions, and the media.

As part of the strategy to follow the dispute over trafficking for sexual exploitation, ninety advertising campaigns launched between 2004 and 2017 (September) were analysed. Of these campaigns, fifty that were mainly produced by a public institution[1] were selected. The analysis of the campaigns focused on their graphic and audiovisual advertising messages, because: 1) they are the most widespread and accessible elements in comparison to other complementary actions (roundtables, theatre plays, etc.); 2) because they directly inform and raise awareness on a mass scale about causes, problems, protagonists, and solutions, extending the concern to the general public.

The sample was subjected to a mixed content analysis, guided by a purpose-created coding table that incorporates quantitative data related to the number of campaigns and the identification and description of structural elements of their production-reception system (year of production and circulation, elements, issuing organisations, target audience, frequency of terms). Also, the semiotic analysis was performed to explore the objectives and strategies of representation and the characterisation of actors, through the study of the slogans and images as well as assumptions and expository models (Peñamarín, 2015).

The purpose is to reveal the centres of attention that prevail in the representations of this reality, as a way of a first diagnosis that allows us to evaluate the ideological and moral orientation of the institutional proposals, and to

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identify key aspects to orient future actions. Given that a single piece may contain several actors or characters, the results derived from considering, first, their presence or absence and, later, their greater or lesser prominence in each campaign (relevance and intensity in the encodings).

3. Analysis and results

3.1. Issuing organisations

The organisations that most frequently launch these campaigns are the autonomous communities (22) and the local governments (18) of Spain. The next most common type of organisation is, to a much lesser extent, the Government of Spain (Ministry of Health, Social Affairs, and Equality); the National Police and the provincial governments (3); and the Basque Women's Institute (Emakunde) (1) (Table 1).

The most systematic institutions in the use of advertising are the Council of Sevilla (9 campaigns since 2008) and the Xunta of Galicia (7 since 2010). The increase in campaigns has been gradual and irregular (Figure 1), but enough to show that sexual exploitation is a public problem incorporated into the institutional political agenda as a priority awareness area.

Table 1. Number of campaigns per type of issuing organisation

Organisations (sample = 24)	Number of campaigns (sample = 50)
Government of Spain	3
National Police	3
Regional and/or provincial bodies	26
Local entities	18

The launching of campaigns often coincides with commemorations such as the "World day against trafficking in persons" (30 July), the "International day against sexual exploitation" (23 September) and the "European anti-trafficking day" (18 October). This fact increases the media coverage and probably the visibility, but it can also make the matter invisible for the rest of the year (hence Figure 1 does not consider 2017, despite the fact that its relevance is part of the sample of the campaign launched by the National Police/Mediaset Group).

The most disseminated campaigns are those launched by the Government of Spain (Ministry of Health, Social Affairs, and Equality) since its campaign materials are also used by the local and regional institutions. Of these campaigns, the 2010 campaign stands out due to its international character –adherence to the global Blue Heart Campaign against Human Trafficking–, its dissemination by multiple local councils and entities, and because it has had the widest dissemination so far: "Take a stand against trafficking in women", of which more than 3,700 posters were circulated in 21 Spanish cities in 2015.

Another relevant case is the campaign of the National Police, which stands out due to the novelty of the campaigner –with no distinguished presence in other topics– and the argument of authority and credibility that its intervention represents in the public space (lately with greater impact thanks to the support of the Mediaset Group).

Other agents with notoriety are the city councils of Seville and Madrid, whose markedly abolitionist proposals have been pioneering and have been accompanied by controversy in the news media. In Seville, the effect of their campaigns was accentuated by their strategy, close to "shock-advertising", which is recurrent but not always effective in social advertising for prevention in health and social welfare. Although Madrid has only launched three campaigns, their impact and efficiency have multiplied as they have been shared with other municipalities like Valencia.

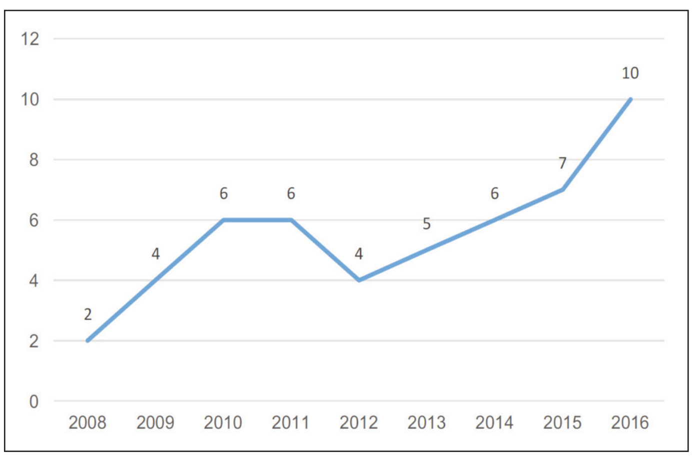

Figure 1. Annual distribution of the sample of campaigns.

3.2. Campaign objectives

The campaigns meet various purposes: raise public awareness, provide data and contexts, generate empathy with the victims and contain the demand, which is the main purpose.

Of the content, the first thing that stands out is that campaigns offer very little information about trafficking and trafficking in persons; the point of view they use to present the subject is more axiological and affective than informative. Virtually none of the ads mention that sexual slavery is a process that may or may not include the crime of trafficking, which depends on international networks and responds to some structural causes that make it an endemic phenomenon in some countries. Only one ad launched by the National Police (2013) reconstructs sexual slavery as a process, resorting to the frequent merchandise metaphor. The stages that are mentioned are selection and extraction of the best raw material, transport, handling, quality control, distribution, promotion, and sale.

To report on this topic and its context, the ad resorts to the use of figures, but not explanations: "While you are reading this message, 45,000 women and girls are sexually exploited in Spain" (Government of Aragon, 2016); "80% of women working in prostitution are forced to do so", "95% of sex slaves are women and girls" (National Police, 2016).

The ad does not mention the conditions in which the crime is committed, the system that protects it, nor the criminal actions that compose it. The only indication is presented through the body of women, through the hyper-visibility of the violence that affects them, which shows victims of attacks in the domestic realm. In this case, women's bodies are the support of the narrative: they are recognised through the pain and marks of humiliation. This explains the metaphorical reiteration of the figure of the slave, the chains, the barcode tattoos and even their representation as corpses.

The majority explicit objective of these initiatives is to reduce demand for prostitution. Other less common objectives are to (in)form about the crime, open up the debate on the statute of the prostitution, encourage denunciation and deter against criminal conducts. More than reporting –what is reasonable in an initial phase– the objective is to shock the receiver through the denunciation of extreme cases, which are always excessive. This strategy of high visibility involves risks, since prioritising a rhetoric of fascination with violence, always exercised against other women who are perceived as different and far from "us" (the non-prostitutes and non-traded), in the mid and long-term, can bring into play the objective of understanding sexual slavery as a systemic phenomenon and its visibility and importance as a form of violence against women.

3.3. Characterisation

3.3.1. Female characters: victims

Of the characters represented, victims and clients are the most abundant (Table 2). Procurers and society are minorities. Victims appear in 40 of the 50 campaigns analysed, and in 24 they are given a relevant role, occupying most of the visual and/or verbal space. The forms of this representation are diverse: as a subject victim of violence or, through a metaphorical configuration: as merchandise (an object of food consumption, packaged, and priced), as a slave, through reference to chains and handcuffs, or transformed in dolls, and in some cases, these images are characterised by a high degree of sexualisation.

Practically absent is the image of the empowered, surviving woman, which managed to appear in campaigns against gender violence. This type of woman is only included in one ad (Council of Almeria, 2014), whose slogan reads "I'm not going to be a victim of sexual exploitation because I have other opportunities". It is significant that in only other three campaigns the victim speaks in the first person: the Xunta of Galicia, 2014: "Non Trate/as conmigo"; the National Police, 2015: "Help me show my face", and the Government of Cantabria, 2012: "They're stealing my life".

The re-victimisation, criminalisation and exoticisation of women is obvious, as in the 2013 ad of the National Police, which represents the potential victims with an image characteristic of the news about raids. It shows the police and women from a club with their back turned, which suggests their relation to the deviation, either criminal or non-criminal. Their condition of irregular immigrants is connoted negatively, linked more to criminality than to their condition as subjects in need of support. This occurs despite the insistence on the harmful implications that these kinds of representations generate by configuring the image of the ideal victim, which can have multiple

Table 2. Presence of the main characters in the sample of campaigns

Women victims of sexual exploitation	40 campaigns (prominently in 24)
Surviving women	1 campaign
Women in the first person	3 campaigns
Consumer of prostitution	34 campaigns (as protagonist in 14)
Pimps	2 campaigns (one is a woman)
Citizens	4 campaigns (2 are physically represented)

consequences among the victims whose case or situation do not fit that pattern, which hinders their access to public services (O'Brien, 2013; Andrijasevic & Mai, 2016; Núñez-Puente, 2015).

3.3.2. Male characters: customers and pimps

Customers appear on 34 occasions, represented by an image or allusion to a "you". They are present as unique protagonists in 14 campaigns, while in the remaining they share space with victims or are verbally alluded to. With regards to the men who represent, the most common is a young or middle-aged man, in a jacket or casual attire. The campaigns launched by the Ministry, through coasters (2009), and the Council of Seville (2016), "Your fun has another face", show a group of young people; the others present a consumer in solitude.

In contrast to the victims, the male figures are not usually sharp; their representation involves drawings, cartons, blurred photographs, images of men turned around or hiding their face. Only the campaign launched by the Council of Madrid in 2015 uses photographs with close-ups, although it applies filters to modify colour. Conversely, the hegemonic representation pattern of women favours their presence using clear and close-up photographs offering testimony. The 2016 campaign of the National Police is exceptional: in it, the consumer of sexual services looks directly at the camera, placing the spectator in the victim's place.

One of the limitations perceived in this approach is the direct identification made between the consumer of prostitution and the offender, through the category of an accomplice (O'Brien, 2015: 28; López-Riopedre, 2011). The legitimacy and effectiveness of this resource of criminalisation can be questioned, as it may not be an effective persuasive strategy to criminalise the consumer whose conduct wants to be inhibited, much less if we consider that, in a situation of consent, the demand for sexual services in exchange for money is not penalised by law.

Paid consumption is judged here in different degrees: from being an undesirable act that morally degrades the perpetrator, to becoming a directly violent (and, therefore, illicit) action. Thus, the demand for sex appears as a socially marginalised and condemned behavior; however, its relevance in terms of consumption.

Likewise, this ad does not elaborate on the complex relationship existing between the consumer of a service and the conditions of exploitation. This absence could be at the service of an abolitionist argument that wants to operate on the hierarchy of certain moral values, a certain common sense and certain political proposals, which avoid setting out clearly the context or the systemic repercussions of this approach. It would appear as frankly disruptive if these same arguments that allude to complicity were used by public institutions to alert on the purchase of goods and services produced under conditions of exploitation in the impoverished areas of the planet, where labour rights are violated, and people often work under conditions of exploitation (O'Brien, 2015).

Finally, the representation of the pimp emerges in a minority of cases. The pimp is represented marginally (in 2 campaigns) and always in a condemnatory way. In one ad, the pimp appears as part of the trafficking process, turned into a character, a children's nightmare monster (National Police, 2013); and, in the other, the pimp reveals the means and effects of his activity, through the slogan "Pimps, their business is violence" (Council of Seville, 2009). All this is presented over a big X filled up with insults such as "chulo", "gavión", "alcahuete", etc.

It is interesting to note that the group of campaigns does not illustrate criminals (traffickers, pimps, abusers...) nor shows the way they act. These figures are always presupposed, abstract and dependent on the victims' testimony. Still, we imagine them either as subjects that are unknown to women, within the mafia or the network; or as subjects that easily deceive women ("lover boy" model). The only human representation of the criminals who mediate in the process is, curiously, that of a woman who retains the passport of an alleged victim in the 2013 campaign of the National Police.

3.3.3. Collective characters: citizens

The citizenry or society, in general, is more mentioned verbally (in four campaigns) than represented at the physical level (in only two campaigns), as the subject recipient of the campaigns and indirectly responsible for the situation due to its presumed indifference and inaction. Here the proposals try to mobilise citizens by questioning them as witness, as people who see what happens, read the papers or the internet ads, and must wake up and act, taking charge of the situation in some way.

3.4. Arguments

Concerning the arguments put into play, the campaign slogans were analysed, understood as bearers of their essential concept in terms of their communicational objective. The most repeated argument is that of the complicity of prostitution users (20 campaigns), which emerges as a violent action in the proposals aimed to inform users of their complicity, redirect their attitude and prevent their conduct. This argument is put forward in slogans that read "Prostitution exists because you pay. Your money hurts a lot", and "Do not consume prostitution. Without customers... there is no prostitution".

The second most recognisable argument aims to avoid the conversion of women into commodities. This relies on the denial of the isotopy formed by such concepts as price, purchase, merchandise, which are present in eleven campaigns: "People are not for sale, make a pact with your heart", "She it is not another object of consumption". The limitation of this strategy is in the reiteration in the visual representation of the conceptual idea that it aims to avoid, which reinforces instead of widening the imaginary associated with the problem.

On the other hand, eight campaigns highlight the need to acknowledge the problem. The proposal refers to a generic opposition to trafficking, for specific reasons: "Take a stand against trafficking in women" and, the easiest, "Say no to sexual exploitation". In this case, the campaigns encourage people to be critical in an unspecific way, assuming certain shared ideas, such as the need to not normalise prostitution and consider that the contexts of prostitution include trafficking.

Finally, it is striking that the representation of the clients of prostitutes and their complicit role is not accompanied by direct appeals to denunciation, which are made only three times with such phrases as "Against trafficking, there is no deal. Report it". It is observed that the mostly abolitionist ideological line here is more focused on blaming the client to avoid consumption than on actively involving clients in the solution.

4. Discussion and conclusions

The analysis reveals the institutional perspectives that have been shown to or hidden from the public in relation to trafficking in women for sexual exploitation, which allows the identification of the possible areas of improvement in future campaigns.

It has been observed that the campaigns have prioritised points of view such as blaming consumption or the narrative centred on the vulnerability of the victims, over other aspects of the crime and the system of trafficking that remain invisible or marginal. This rhetoric is based on the agreed meaning of solidarity, which is defined by Agustín (2009) as the "rescue industry". This builds a univocal narrative, in which the conflict between good and bad actors is simplified (to the detriment of greater nuances and structural factors), which favours the widespread rejection towards solicitors of prostitution and an empathic attitude towards the victims.

In the absence of the permanent accusation of the responsible agents, the argument moves towards the receiver, who is challenged by the representation of the suffering of the victims and is encouraged to feel compassion and unspecific indignation towards them, portrayed as innocent and mostly "disempowered" (the idealised profile). These victims, characterised in this way, are distanced from the irregular immigrants, since the latter is associated with action and decision, and the former is portrayed as incapable of making decisions and consent to what they do (O'Brien, 2015; Saiz-Echezarreta, Alvarado, & Fernández-Romero, 2017; Kempadoo, 2005).

Public institutions, by democratic delegation, are presented as compassionate, efficient and capable of preventing crime. Moreover, they assume an identity as agents capable of liberating and saving women, thanks to the transfer of resources to other entities (city councils) or the state security forces and bodies. This representation absolves citizens of responsibility over the conditions of vulnerability, inequality, and violence that are at the origin of the trafficking system, in a logic that is similar to that used for several decades in the campaigns of NGOs for development (Saiz-Echezarreta, Alvarado, & Fernández-Romero, 2017; Haynes, 2014). It will be necessary to investigate the implications of presenting citizens only as part of the solution and not the potential causes that favour the expansion of the crime (O'Brien, 2015).

Excluded from representation are the public policies of the institutional actors, who use these resources to legitimise their proposals at the local level with ordinances that can produce situations of greater exclusion and vulnerability in victims, and at the (inter)national level to normalise restrictive migratory policies, which are questioned from the perspective of the human rights of migrants (Kempadoo, 2005; Andrijasevic & Mai, 2016; Kapur, 2002; Nieuwenhuys & Pécoud, 2007).

Institutions operate through advertising from an abolitionist position, which facilitates in the public sphere the narrative orientation of the controversy in favour of this position, at a time when institutional scenarios get intertwined with other territories and remit to the reproduction of certain hegemonic socio-sexual and colonialist orders (Kapur, 2002; Kempadoo, 2016). Therefore, it would be important for these campaigns not to avoid the context of controversy, in particular when they maintain a perspective focused on moral judgment and emotional intensity, which is useful to the moral panic strategy (Weitzer, 2007; Irvine, 2007) which in turn affects the construction of trafficking as a public problem.

With regards to the demand, while the campaigns do not deny its impact on trafficking, there are limitations in its overrepresentation. The one-way relation that the campaigns suggest that exist between demand for sexual services and trafficking may not be so obvious. If so, there would be no doubt of the need to prohibit prostitution, and the truth is that its legal status is the subject of academic, political and social debate. The question is, for example, whether it is reasonable for public institutions to communicate that paying for sex is something negative and even illegal when the situation in Spain is of lack of legislative definition.

By eluding the causes and structural conditions of trafficking and sexual exploitation and mostly pointing out a wrong and immoral desire to get access to sex for pay, these campaigns open a space to apply the narratives and common places inserted in news stories: raids, disarticulation of networks and pimps condemned in trials, among others. This has an impact on the extreme model of the good, institutional, actors and the bad actors, who are not defined under little convincing metaphors like that of the mafias (López-Riopedre, 2011).

Representations (even more in advertising) imply a process of simplification, of translation of the unknown into familiar terms. According to their ways to operate in the public space, they can be useful to widen the social and open spaces of participation and responsibility. From this perspective, the design of future campaigns should start with the discussion and acute review of the strategies and discourses that have been used, and the assessment of their impact, which would require the necessary planning of its integral measurement.

In pursuit of the effectiveness of these interventions, it would be desirable to increase professionalisation in the area of research and to set specific routines oriented to the search for synergies, taking advantage of strategies and campaigns that have been already carried out, and to ending operations in a seasonal basis. This would allow us to unite and streamline efforts, and to keep this issue in the public sphere more continuously.

Following the search for this efficacy, it would also be convenient to review their rules, intervention guidelines and theoretical conceptualisation, since the dissemination of shared knowledge requires addressing the questions made about the definition of the problem of trafficking, which has been recommended in “Cadernos Pagu”, 47, especially Piscitelli’s contribution (2016).

Concerning the strategy of moral, sexual and affective panic followed by the campaigns, it seems necessary to review and implement efforts to connect sexual exploitation with other issues, like other types of exploitation and trafficking, migration policies and violence against women. The lessons learned must be collected, and the campaigns must incorporate an approach focused on the attackers, the structural causes, and women and their families as survivors and not only as victims.

If, as O’Brien points out, it is the focus on the singular demand for sex for pay what makes it difficult to address the collective and individual responsibility in relation to a chain of structural injustices and inequalities, it is advisable that the campaigns are broader and more focused on making the phenomenon known, in order to enable citizens to identify the crime and favour actions in this respect (containment of demand, promotion of denunciation, reduction of stigmatisation of victims). Finally, considering the participation of these campaigns in the controversy, it would be necessary to contemplate the distinction between sexual work and sexual exploitation, and to incorporate other voices and approaches, such as those of sexual workers (Kempadoo, 2005: 149-158).

Cultural and social efficiency must be addressed, and maybe bet, as in other cases, because the construction of a transformative image in the context of controversy can defuse scepticism and the arguments that maintain the status quo and encourage denunciation and the search for a collective solution (De-Andrés, Nos-Aldás & García, 2016: 35).

Notes

[1] Catalogue available at: https://figshare.com/s/8fcf63f843a43e64a68e.

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#TrumpenMéxico. Transnational connective action in Twitter and the dispute on the border wall

#TrumpenMéxico. Acción conectiva transnacional en Twitter y la disputa por el muro fronterizo

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ABSTRACT
This article aims to identify how digital public opinion was articulated on Twitter during the visit of the Republican presidential candidate Donald Trump to Mexico City in 2016 by invitation from the Mexican government, which was preceded by the threat to construct a border wall that Mexico would pay for. Using a mixed methodology made up of computational methods such as data mining and social network analysis combined with content analysis, the authors identify conversational patterns and the structures of the networks formed, beginning with this event involving the foreign policy of both countries that share a long border. The authors study the digital media practices and emotional frameworks these social network users employed to involve themselves in the controversial visit, marked by complex political, cultural and historical relations. The analysis of 352,203 tweets in two languages (English and Spanish), those most used in the conversations, opened the door to an understanding as to how transnational public opinion is articulated in connective actions detonated by newsworthy events in distinct cultural contexts, as well as the emotional frameworks that permeated the conversation, whose palpable differences show that Twitter is not a homogeneous universe, but rather a set of universes codetermined by sociocultural context.

RESUMEN
El presente artículo busca identificar cómo se articuló la opinión pública digital en la red social Twitter durante la visita del entonces candidato republicano Donald Trump a la Ciudad de México en el año 2016 por invitación del gobierno mexicano que fue precedida de la amenaza de construir un muro fronterizo que pagaría México. Mediante una metodología mixta compuesta por métodos computacionales tales como minería de datos y análisis de redes sociales combinado con análisis de contenido se identifican los patrones de la conversación y las estructuras de redes que se conformaron a partir de este acontecimiento de la política exterior de ambas naciones que comparten una extensa frontera. Se estudiaron las prácticas mediáticas digitales y los encuadres emocionales con los cuales los usuarios de esta red social se involucraron en la controversial visita marcada por una compleja relación política, cultural e histórica. El análisis de 352.203 tuits en dos idiomas (inglés y español), los más utilizados en las conversaciones, permitió comprender cómo se articula la opinión pública transnacional en acciones conectivas detonadas por eventos noticiosos en contextos culturales distintos, así como los encuadres emocionales que permearon la conversación, cuyas diferencias palpables demuestran que cuando se habla de Twitter no se trata de un universo homogéneo, sino de un conjunto de universos codeterminados por el contexto sociocultural.

KEYWORDS | PALABRAS CLAVE
Networks, social networks, public opinion, political communication, digital communication, cultural practices, emotions, virtual environment.
Redes, redes sociales, opinión pública, comunicación política, comunicación digital, prácticas culturales, emoción, entorno virtual.

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1. Introduction

"Donald Trump to visit Mexico after more than a year of Mocking It", The New York Times front page announced on August 31, 2016 (Corasaniti & Ahmed, 2016). Candidate Donald Trump's visit to Mexico, by invitation of President Enrique Peña Nieto, was considered an act of the Mexican government's clumsiness by the international press (The Economist, 2016; Ahmed & Malkin, 2016), due to Trump's disparaging comments, threatening throughout his campaign to build a border wall that would be paid for by Mexico. On the night of August 30, 2016, Mexicans learned from a tweet by the American candidate that Peña had invited him to visit the country. Twitter was the protagonist of the event since the Mexican primetime newscasts were getting off the air. Trump's tweet was ratified by the Mexican presidency, and The Washington Post announced the information as breaking news. These were the sources of information available to the Mexican digital media, which were able to cover the eleventh-hour meeting, and the only input for a connective action to begin to be articulated on Twitter.

Bennett and Segerberg (2013) call "connective action" those various kinds of movements organized through networks whose flexibility facilitates participation in political life and constitutes the theoretical starting point of this research. To understand how public opinion was articulated during this connective action on Twitter, the authors identify patterns, actors, media practices and emotional frameworks with which users made sense of their agency with relation to this episode of Mexico–United States politics.

The following questions are posed: How was the connective action articulated by Trump's visit? Who were the most influential actors, which were their communities, and what media practices facilitated their preeminence in this connective action? What emotional frameworks were used to make sense of the connective action?

The analysis corresponds to a period of four days: the day the visit was announced, the day of the visit, and the two following days in which the issue continued to be discussed.

1.1. Connective action and emotional frameworks

Before the visit, a reactive and affective (Papacharissi & Oliveira, 2012) reaction was articulated, as is characteristic of the Twitter public (Jungherr, 2015). This was a connective action that united users in a spontaneous and personalized way, giving shape to the news environment that characterizes this social network (Bruns & Burgess, 2012). The meeting formed community structures for Spanish-speaking and English-speaking users (Conover & al., 2011). These were reinforced by a testable experience of uses and gratifications, an approach employed by some researchers to understand how people use certain media to satisfy needs (Katz, Blumler, & Gurevitch, 1973; Jungherr, 2015; Chen, 2011; Parmelee & Bichard, 2011; Liu & al., 2010).

Beyond the uses, this article analyzes digital media practices (Couldry, 2012) and cultural resources, through which users gave meaning to their participation in this space of the public sphere. Twitter users joined the conversation through emotional frameworks, understood as the set of emotional filters socially constructed for the individual to understand and interpret the world (Goffman & Rodríguez, 2006).

For Mexicans, Trump's visit was framed emotionally in a complex bilateral relationship between neighbors who, although sharing a border of 1,984 miles (3,193 kilometers) (International Boundary and Water Commission, 2018), have been defined as distant because of their economic and cultural differences (Riding, 2011). Between 1965 and 2015, 16.2 million immigrants left from Mexico to the United States (Krogstad, 2016). In the last 25 years, the United States has tightened immigration policy on its southern border to curb illegal immigration, reinforcing it in 2006 with the issuance of the Secure Fence Act. Even before Trump's arrival in politics, differences over immigration had been settled through diplomatic channels.

1.2. Twitter as an extension of the political communication space

Twitter has been studied for its role in disseminating news and in constructing a transnational public agenda (Bruns & Burgess, 2012; Hermida, 2010). It has also been studied for its communicative possibilities as a facilitator in organizing multitudes (Bennett & Segerberg, 2013); for its conversational logic and for the affective load that is transferred from the individuality of the private sphere to the public sphere in flexible mobility, characteristic of citizen practice in time of networks (Ranie & Wellman, 2012; Hansen, 2011; Papacharissi, 2015). It has been studied as a mediator of reality, which offers the opportunity to know what is being said about politics (Jungherr, 2015).

Its public carries out news coverage (Hermida, 2010; Lotan & al., 2011) or monitoring of issues of interest (Deuze, 2008), a phenomenon analyzed by various researchers, who agree that Twitter more closely resembles informative media than social network (Kwak & al., 2010; Hermida, 2010; González-Bailón & al., 2011); a characteristic that makes it useful for mobilization and activism.

Twitter facilitates connections and sharing symbolic resources to the entire hybrid media environment that, according to Chadwick (2013), is made up of different platforms and actors with different levels of relationships, who post, share, negotiate meanings and select information in a continuous work of curating content permeated by diverse emotions.

The conversations are structured through different semantic conventions. Hashtags serve to organize the issues –of unease or support– and to stimulate participation in which people negotiate the meanings of actions (Jungherr, 2015). They allow the user to get in touch with audiences beyond their timeline –made up of those they follow– and makes the search for topics functional. According to Bruns and Burgess (2012), the discursive communities around the hashtags allow Twitter to be recognized as a network for dissemination and discussion of news topics.

Retweets contribute to the conversational ecology by replicating a user's information and mixing it with opinion and testimony of participation, without necessarily agreeing (Boyd, Golder, & Lotan, 2010; Honey & Herring, 2009; Cha & al., 2010; Papacharissi & Oliveira, 2012). Mentions are another convention, considered a measure of influence –together with retweets and number of followers– that favor the viralization that characterizes Twitter.

> Massive data analysis offered a map of a phenomenon that occurred frenetically through an infinite number of variables, and the ability to correlate them with each other. With mixed techniques, a map of the conversation was drawn, and thanks to the focalization allowed by digital observation and content analysis the emotional frameworks behind this connective action were understood. Bilingual content analysis allows the others to maintain that tweeting is a cultural practice in which contexts are intermixed and various worldviews are expressed. Hypotheses related to the affective reactions of the Twitter public before newsworthy events were reinforced, usually reactive based on emotional frameworks and from specific cultural and political contexts.

Some studies consider structural factors of participating in the social network, such as connectivity. Mexico is an emerging economy, with broad swaths of its population not connected: 57.4% of Mexicans have Internet access (INEGI, 2016) and there are barely 9 million Twitter users in Mexico (Brandwatch, 2016). In the United States, 88.5% of the population has access to the Internet (Internet Live Stats, 2016), and there are 56.8 million Twitter users there (Statista, 2016).

2. Materials and methods

Using Twitter's API, 352,203 tweets were captured between August 30 and September 2 through the following hashtags: #EPN, #Trump, #QuePeñaTrump #TrumpalmuseoMyT #TrumpInMexico, #Trumpen Mexico, #TrumpenMéxico #SrTrumpcontodorespeto and #Trumpnoeresbienvenido. The integration of a corpus by these semantic conventions leaves out part of the conversations, although it is an accessible way to capture unstructured data. The following communicative conventions were taken as categories of analysis: hashtags, mentions, retweets and the content of the conversation.

A mixed methodology focus was adopted. Data mining allowed the possibility of analyzing patterns of conversation frequency and intensity; this is a technique that helps to extract value from an unstructured database. The R program allowed the possibility of analyzing different semantic conventions in the tweets, actors and cultural

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resources quickly, which then, from sub-samples, were observed to analyze in a more focused way the profiles of intensive and influential actors and their digital media practices. The analysis of social networks, according to which a social environment is expressed in patterns and tendencies in agreement with the interrelation of actors, permitted the analysis of the structures configured in the conversations (Wasserman & Faust, 1994). To recognize the structures of the networks of influential actors, the program Gephi 8.2 was used.

To analyze the emotional framework, content analysis was chosen, a technique that allows for trustworthy and replicable inferences from texts in their context, to understand qualitative variables such as the emotions behind the tweets (Krippendorff, 1997). For the analysis, a sub-sample of 10,000 tweets was chosen randomly and divided into two languages (5,000 in English and 5,000 in Spanish).

3. Results

The visit was the object of multilingual conversations, with English and Spanish dominant without being able to determine territorial location, since not all users activate geolocation. From the sample of tweets analyzed using hashtags, 46% were written in Spanish and 54% in English; other languages such as French, German, and Arabic were identified, which speaks to a transnational conversation.

Connective actions on Twitter are usually detonated by external stimuli, but in this case, it was sparked from within the network, when at 9:33 pm EDT on August 30, 2016, Trump tweeted: "I have accepted the invitation of President Enrique Peña Nieto, of Mexico, and look very much forward to meeting him tomorrow". Six minutes later, the Mexican presidency confirmed this. The connective action was activated within minutes, generating two tweets per minute until midnight. No traditional Mexican media published the scoop; the newspaper The Washington Post took care of that.

The most-watched television news in Mexico, TV Azteca, announced the news in the last five minutes of its transmission, while the Televisa network barely mentioned it. Mexican digital newspapers began to report on it around 10:00 pm CDT, taking the tweets as their source. Between 6:00 am and 9:00 am CDT on August 31, in Spanish 45 tweets per minute were registered, versus only 5 in English. The information dynamics for both samples had different behaviors, as can be observed in Figure 1.

The period with the greater color density indicates more tweets for each language; although messages in Spanish began around 8:00 am and lasted until after midnight, the moment of greatest intensity was 3:15 pm, whereas in English the greatest intensity occurred between 4:00 pm and 8:00 pm with more than 20,000 tweets per hour.

The climax of the visit corresponds to the greatest volume of tweets, which was in the afternoon of August 31, after the closed-door meeting when both politicians offered a joint message in which Peña gave a conciliatory speech. This contrasted with the collective imaginaries of Mexicans reflected on Twitter, who expected a confrontation with Trump, who at the beginning of his campaign had referred to Mexicans as criminals (Time, 2015).

During the live message, the Mexican presidency prohibited questions from the press, a common practice in Mexico but not in the United States, so journalists from CNN and ABC, respectively, interrupted to ask whether they had spoken about the border wall. Before Peña's bewilderment, Trump asserted that they had spoken about the wall, but not about who would pay for it. In that moment, Twitter's reactive profile was obvious as the flow of messages reached a rhythm of four tweets per second, an intensity that continued for several hours, confirming that the news-style environment in controversial events is articulated in a hybrid way – that is, on social networks and traditional media such as radio and television.

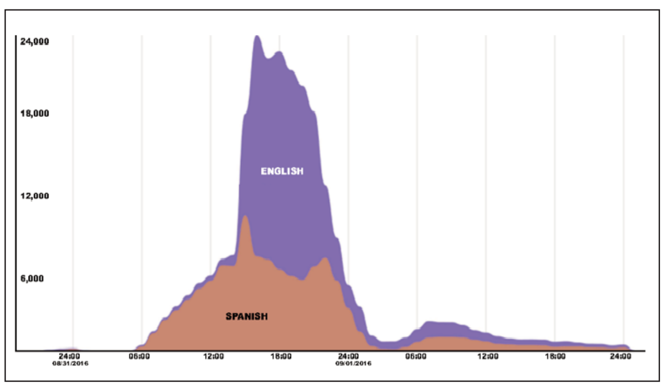

Figure 1. Volume of tweets in Spanish and English, August 31st, 2016.

Faced with criticism for not responding to Trump, Peña resorted to Twitter hours later to clarify that he had indeed said that Mexico would not pay for the wall: "At the beginning of the conversation with Donald Trump, I

Figure 2. The discursive dispute over the border wall.

made it clear that Mexico will not pay for the wall". Twitter became a weapon to settle issues that could have been resolved using diplomacy (Figure 2).

Upon his return to the United States, Trump gave a speech in Arizona reconfirming his conviction that Mexico should pay for the wall (Politico.com, 2016). For the international press, Peña had legitimized Trump's threats against Mexico. This caused a drop in his popularity since 75% of Mexicans considered the visit to be unfavorable (AFP, 2016).

On September 1, the conversation continued. The Mexican president sent a second tweet: "I repeat what I told you personally, Mr. Trump: Mexico would never pay for a wall. twitter.com/realdonaldtrum..". He confirmed his tweet from the previous day, which would be refuted by the candidate, who in another tweet reaffirmed that Mexico would pay for the wall. For Republicans, it had been a triumph, while for the Democratic candidate Hillary Clinton the exchange of tweets showed that her opponent lied and had embarrassed the United States (Merica, 2016).

The most used hashtag in English and Spanish was #TrumpenMexico, while the volume was greater in English, 188,964 tweets versus 166,239 tweets in Spanish.

3.1. Intensive actors and digital media practices

Two sub-samples were taken, one of the users in Spanish and the other in English, to be able to identify the actors who used Twitter most intensively during this connective action.

The 20 users who tweeted the most about the issue were selected in each language, even though previous studies have shown that those who publish the most are not the most influential users (Cha & al., 2010; Wu & al., 2011; Bakshy & al., 2011). Their usage patterns were explored, as well as the digital practices through which they became connected to the visit. To analyze the frequency of the activity of the 20 most active users in each language (Table 1) an average was taken of the quantity of total tweets made by their accounts divided by the number of days since the creation of each account. In Spanish, the publications of the 20 most active users increased 80%, reaching an average of 105.9 tweets per day. For the 20 most active in English, activity increased 70%, reaching 121.35 tweets per day. The intensity of use confirms hypotheses regarding the reactive and temporal character of Twitter during controversial events.

Observing the time line of each user, it was detected that these were politically active users, which confirms that opinions on Twitter are not representative of public opinion, but it is a politicized public that reacts to political events, creating a news flow. The number of followers in the sub-sample of intensive users raged from 30 to 54,000 followers, which denotes a great variety of profiles. In comparing them, important differences were found in relation to their involvement: 85% of the most active users' accounts in Spanish were anonymous, versus 45% of those in English, which coincides with previous studies that show a relationship between anonymity and accounts that emit the most tweets about polemic issues (Peddinti, Ross, & Cappos, 2014).

Of the accounts in Spanish, 100% were adverse to both Peña and Trump and condemned the visit, coinciding with public opinion surveys carried out in Mexico (AFP, 2016). Among the accounts in English, a greater balance was found: 50% supported the Republican and the remaining 50% supported Hillary Clinton, which suggests that the intensity and practices of users were influenced by the presidential campaign.

3.2. Influential actors and communities of influence

Influence has been studied by social and cognitive sciences. The theory of diffusion signals that a minority of users, called influencers, can persuade others (Rogers, 2010) and establishes that when these reach a certain network, a chain reaction can be achieved at low cost. There are other factors that determine influence, such as the

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Table 1. Most active users								
Top	Most active users in Spanish				Most active users in English			
	User	Start date	Number of tweets	Average tweets/day	User	Start date	Number of tweets	Average tweets/day
1	AdrianaT9735	01/05/13	607.000	478.707	carm2158	01/01/11	111.000	52.383
2	Magiadee	01/06/09	11.200	4.151	christine081579	01/09/15	98.000	236.145
3	VictorM37282014	01/04/12	123.000	73.963	TheRework	01/03/11	64.800	31.456
4	letradoarmando1	01/11/15	149.000	420.904	mytweetmark	01/08/09	85.100	32.272
5	Jan_Herzog	01/08/08	339.000	112.925	annbeth22845	01/12/12	30.700	21.635
6	fabiangiles	01/07/07	63.000	18.535	brujeff77	01/10/15	75.100	195.065
7	LaCartita	01/07/15	8.075	16.929	KSISKProduction	01/10/15	59.500	154.545
8	DoctorYerBlues	01/05/12	66.200	40.539	Gwydion620	01/05/12	66.800	40.906
9	VictorMCMontes1	01/05/14	14.000	15.504	JasonStokley076	01/01/12	33.900	19.327
10	Alefgea	01/09/09	56.900	21.834	Fleurdelisazure	01/07/13	51.900	42.999
11	justsaymeGaby	01/10/10	5.939	2.686	Chris11962	01/09/10	105.000	46.854
12	Jhonycastledos	01/06/12	26.300	16.417	lisaturnerdecor	01/11/11	46.900	25.84
13	Nightwich	01/09/10	120.000	53.548	magnifier661	01/12/12	179.000	126.145
14	AreliuxHashiba	01/05/12	34.800	21.31	taradublirocks	01/06/09	180.000	66.716
15	Carlos2Mjuma	01/06/12	3.322	2.074	denisedr58	01/05/09	38.800	14.218
16	mariachimario	01/07/10	152.000	66.001	BrendaSue28	01/04/16	29.500	146.04
17	sarc680814	01/04/15	7.916	13.937	RoemerGail	01/10/14	13.300	17.733
18	Lucpratz	01/12/09	22.400	8.907	TrumpTrain09	01/08/16	18.100	226.25
19	Qiuned	01/09/11	162.000	86.354	RichardCruzC	01/05/09	49.300	18.065
20	ileana_Mex	01/10/09	175.000	67.935	Cyogenik28	01/03/09	79.700	28.566

interpersonal relationship between users and their disposition (Watts & Dodds, 2007). Although there is no consensus on how to measure influence on Twitter, an analysis was carried out based on two variables:

- Direct influence. This is represented by the quantity of followers a determined user has.
- Retweet (RT) influence. This can be measured by the number of RT a user's content generated.

There are studies that analyze the influence of mentions, measured by the number of times a determined user is mentioned to involve others in the conversation. In this case, the most-mentioned users were the two political leaders.

3.2.1. Direct influence

We chose the 20 users with the most followers in each language. We observed in both sub-samples that journalists, media, and performers were the influencers based on their number of followers. As can be seen in Table 2, in Spanish, influencers have fewer followers, probably because the number of users is substantially higher in the United States.

This finding reinforces the hypothesis previously explored in the literature, regarding influential personalities on social networks who are directly connected and can have high one-on-one interaction. In this action, few individuals served as nodes and conversational pivots. In the case of the Spanish-language sub-sample, only media, journalists and Mexican television personalities stand out, whereas in the English-language one media such as the French @France24 and the Canadian paper @TorontoStar stand out, but also a Mexican actress (@ADELAREGUERA) and a Mexican journalist residing in Los Angeles (@LeonKrauze), who tweet in English and Spanish. This intertwining of influential actors diffuses national borders and reaffirms Twitter's transnational character.

Table 2. Direct influence			
Top 20 users – Spanish		Top 20 users – English	
1. Twitterenespanol	11.DeniseDresserG	1. NPR	11. Adelareguera
2. Werevertumorro	12.TWICHISTE	2. DRJAMESCABOT	12. hodgman
3. CarlosLoret	13.NTelevisa_com	3. TeenVogue	13. AppSame
4. AndreaLegarreta	14.Chilango	4. USATODAY	14. thedailybeast
5. Adela_Micha	15.mediotiempo	5. FRANCE24	15. LeonKrauze
6. Broxoxmiswebs	16.Reforma	6. someecards	16. antoniosabatojr
7. El_Universal_Mx	17.DeniseMarker	7. ERNESTZorro	17. geertwilderspvv
8. Revistaproceso	18.SexenioMX	8. nprpolitics	18. TorontoStar
9. CNNMex	19.Sopitas	9. latimes	19. UPROXXtrending
10. Milenio	20.ChiguireBipolar	10. georgelopez	20. deray

3.2.2. Retweet influence

The most retweeted users were not those who have the most followers (Table 3). For users in Spanish, opportunistic actors who inserted themselves into the political conversation for other ends, such as promotion, stand out, as in the case of a museum in Mexico City (@MuseoMyT). This is a characteristic of social networks that deserves further research.

In the network of RT in English, celebrities and a base of Trump supporters stood out, although we also observed Clinton supporters and mass media. Some of the pro-Trump accounts were suspended after the event, which suggests the use of bots, a phenomenon documented by experts who report that one-fifth of the Twitter conversation related to the election in the United States was conducted by bots (Bessi & Ferrara, 2016).

Table 3. Retweet influence

Top 20 RT – Spanish		Top 20 RT – English	
1. @MuseoMyT	11. @JLozanoA	1. @JaredWyand	11. @P0TUSTrump
2. @pictoline	12. @kikesma	2. @Darren32895836	12. @V_of_Europe
3. @LosSimpsonMX	13. @ javierpoza	3. @TEN_GOP	13. @LindaSuhler
4. @chochos	14. @anabrendac	4. @Cernovich	14. @jaykpurdy
5. @Pajaropolitico	15. @IvanZavala	5. @USAforTrump2016	15. @Pamela_Moore13
6. @taller2006	16. 2emeequis	6. @TheDailyEdge	16. @Kotcha301
7. @AntiTelevisaMx	17. @JoseUrquijoR	7. @peterdaou	17. @ajplus
8. @maxfreixenet	18. @sopitas	8. @Veteran4Trump	18. @Always_Trump
9. @AutosyMas	19. @jenarovillamil	9. @TheBaxterBean	19. @FranciscoMedRep
10. @Milenio	20. @GustavoVela71	10. @latinaafortrump	20. @SouthLoneStar

Retweets represent the influence of a particular user beyond a one-on-one interaction, as those messages can reinforce an argument and have broad dissemination. The analysis of social networks combined with observation of the profiles of the actors who generated the most RT permitted a delineation of the communities that formed around them. These communities were formed from those nodes that were more densely connected among themselves than with the rest of the network.

In the English-language sub-sample, it was observed that the conversation was inscribed within the Republican and Democratic battle for the presidency. In the network in Spanish, four large communities were detected, with an actor standing out that was not directly connected to the issue, like the Museum of Memory and Tolerance in Mexico, which found an opportunity to get its message out using hashtags inviting Trump to visit the museum and which was the most retweeted node that articulated various communities around it:

- Mr. Trump: For you it's free.
- Mr. Trump: Come on to remember that we are all equal.

3.3. Emotional frameworks and cultural contexts

Previous studies such as that of Hong, Convertino y Chi (2011) have found substantial cultural differences in the use of Twitter according to the linguistic community, which was corroborated.

This study does not aim to delve into the relationship between language and national identity. We assume, as Even-Zohar (1999), that language is only one part of the maximal cultural complexity in a world configured by migrations and cultural hybridizations such as those observed in Mexico and the United States.

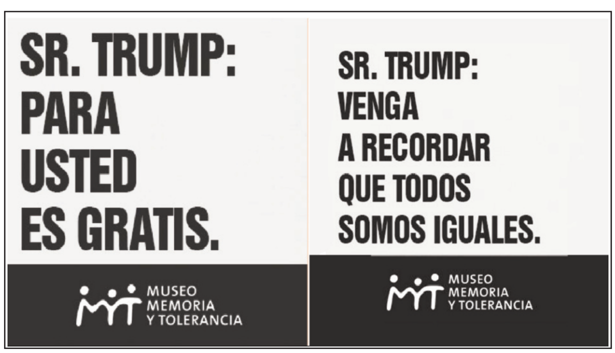

Figure 3. Cybercultural resources. Trump in Mexico (Screenshot of the Twitter account of the Museum of Memory and Tolerance [Museo Memoria y Tolerancia] (August 31th, 2016).

Twitter is a transnational network in which users declare the language in which they write, so the conversation was divided into two clusters. To understand the meaning that users imparted upon the conversation and the emotional framework behind the connective action, a random sampling of 5,000 messages was taken for each language, and Twitter's temporal narratives were analyzed using the following categories: taunt, support, rejection, surprise, and informative tweet. "Other" and "insufficient" were incorporated for difficult-to-categorize tweets, and "not related" for those that use the hashtag to talk about other issues.

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In the composite in English, the predominant posture was support of Trump. Some 40.60% applauded the episode and 24.22% disliked it (this category also included all the tweets that disparaged the politicians). Some 9.72% of the messages were categorized as taunts. The "Other" category, which had other intentions related to the issue of the visit, represented 10.68% in English and 3.66% in Spanish, as can be seen in Table 4. This category included messages to Clinton, both positive and negative. Some 7.18% were informative messages and live transmissions. In the English-language sample, an involvement permeated by electoral content was observed.

The sample in Spanish got involved with the visit in a different way: more than half of the tweets (59%) were messages of rejection or dislike related to the visit and against the politicians. The Spanish-speakers included taunts in the conversation (21.38%) with 1,069 tweets –versus 486 in English– recorded in this category. Only 30 supportive tweets were found (0.6%). It can be held that the emotional framework was permeated by Trump's insults against Mexicans.

Some of the messages were accompanied by memes and graphic elements to ridicule the politicians, resources that were not used significantly in English. The use of grandiloquent words was detected as a recurring resource to express rejection, dislike and taunt – emotions that were dominant in this sample. These categories were followed by neutral or informative tweets, with 12% of messages not carrying connotation and that aimed to cite, give information or attach some news. Another phenomenon worthy of study is the messages mixing English and Spanish, of which 34 cases were found.

Table 4. Emotional framework

Emotional framework	English		Spanish	
Taunt	486	9.72%	1.069	21.38%
Support	2,030	40.60%	30	0,6%
Rejection/Dislike	1,211	24.22%	2.972	59.44%
Surprise	1	0.02%	25	0,5%
Informative	359	7.18%	604	12.08%
Other	534	10.68%	183	3.66%
Insufficient	169	3.38%	84	1.68%
Not related	210	4.20%	33	0.66%

4. Discussion and conclusions

Massive data analysis offered a map of a phenomenon that occurred frenetically through an infinite number of variables, and the ability to correlate them with each other. With mixed techniques, a map of the conversation was drawn, and thanks to the focalization allowed by digital observation and content analysis the emotional frameworks behind this connective action were understood.

Bilingual content analysis allows the others to maintain that tweeting is a cultural practice in which contexts are intermixed and various worldviews are expressed. Hypotheses related to the affective reactions of the Twitter public before newsworthy events were reinforced, usually reactive based on emotional frameworks and from specific cultural and political contexts.

The cultural and political context is the determining factor for the meaning of the conversations, which requires context analysis for a full understanding of the dynamics of transnational digital communication, in which traditional media continue to play a relevant role. A challenge for future research is to improve using automated learning techniques, the processing of emotions in languages other than English; for this more studies on the role of emotions in contemporary politics are pertinent.

For now, there is a broad understanding generated from the Anglo-Saxon scientific world, but there is a need for studies from other cultural and linguistic contexts, especially from the sociopolitical reality of the so-called Global South. A bot analysis is pertinent to current studies, for which automatization is a necessary variable in political communication.

The analysis in English confirms that the visit was part of the US campaigns in which party machinery was clear in the intensive and influential users supporting Trump and Clinton, respectively. The social network analysis was useful to sustain this finding, since we found two well delineated clusters of followers of each candidate.

Thanks to the mixed methods, it was possible to ratify the influence of sociopolitical context on Twitter conversations. On the one hand, an action framed within the electoral context of the United States, in which immigration was a central issue, and on the other hand, the reactive and spontaneous character of users outraged by Trump's xenophobic affronts.

In the Spanish-language connective action, the network was formed in a less centralized way. Here, many actors participated with different aims, which could be detected with the closeness allowed by digital observation, manifesting that public opinion on Twitter is not always driven by journalists, outraged people, bots or influential actors, but also by actors who find an opportunity to enter into and create a meta conversation in search of particular objectives, which complicates the study of digital public opinion.

Studies of conversations on the transnational scale that investigate the meeting points between different cultures and political context are necessary to strengthen hypotheses relating to echo chambers as a phenomenon characteristic of digital public opinion. The hypothesis touched upon in the literature about the lack of horizontality in social networks was reinforced; this action was tweeted about more in English, which could be due to the degree of connectivity and participative culture in each country, which leads to inequality in constructing an international agenda from social networks. This analysis can help to pose questions for future research about the risks of practicing politics on Twitter to settle controversies without the mediation of traditional media, as Trump did in his first year as president.

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Youth impact in the public sphere: The dissolution of the Spanish Youth Council in the press and on Twitter

El impacto de los jóvenes en la esfera pública: La disolución del Consejo de la Juventud de España en la prensa y en Twitter

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ABSTRACT

This article aims to contribute to the study of the difficulties that young people face in accessing the public sphere as political actors. It looks at the press coverage and the Twitter activity surrounding the restructuring process and the subsequent dissolution of the Spanish Youth Council (Consejo de la Juventud de España - CJE). A content analysis was carried out on the news published in 22 newspapers between 2012 and 2014, as well as on the use of Twitter within the framework of the "Salvemos el CJE" campaign during the same period of time. The main objective of the analysis has been to see the prominence of this issue on both the media and citizens agendas. In most newspapers, the measures taken by the government vis-á-vis the CJE were treated as punctual news of peripheral importance. The online campaign, mainly orchestrated by youth grassroots movements, raised the controversy on the biased nature and the political consequences of this plan. The core of the campaign addressed the representation of young people in public institutions. The results of the study suggest that the increased potential for visibility offered by social media is not always maximized and does not necessarily alter the prominence of an issue in the public sphere.

RESUMEN

Este artículo pretende contribuir al estudio de las dificultades que encuentran los jóvenes a la hora de acceder a la esfera pública como actores políticos. Concretamente, se centra la atención en la cobertura en prensa y la repercusión en Twitter de la información relativa al proceso de disolución del Consejo de la Juventud de España (CJE). El texto da cuenta del análisis de contenido realizado sobre las noticias aparecidas en 22 periódicos españoles entre los años 2012 y 2014, así como del análisis del posicionamiento en Twitter de la campaña «Salvemos el CJE» durante el mismo período de tiempo. El principal objetivo es ver cómo la cuestión de la disolución del CJE es planteada desde la agenda mediática y desde la agenda ciudadana. En la mayoría de periódicos analizados, las medidas tomadas por el gobierno respecto al CJE son tratadas como un hecho noticioso puntual y de baja repercusión. La campaña online ofrece un discurso gestado desde los movimientos juveniles de base y plantea abiertamente la controversia acerca del sesgo y las consecuencias políticas de esta medida. La campaña gira entorno a la representación de la juventud en las instituciones públicas. Los resultados del estudio muestran cómo las crecientes oportunidades de visibilización que ofrecen las redes sociales no siempre comportan un mejor posicionamiento de un tema en la esfera pública.

KEYWORDS | PALABRAS CLAVE

Youth, public sphere, press, Twitter, youth agencies, cyberpolitics, media agenda, citizens agenda.
Juventud, esfera pública, prensa, Twitter, agencias de juventud, ciberpolítica, agenda mediática, agenda ciudadana.

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1. Introduction

The youth is under scrutiny in numerous studies aimed to analyze their access to the public sphere as political actors (Briggs, 2017; Cammaerts & al., 2016; Chou & al., 2017). In Spain, some analyses have pointed to the need of considering the "question of youth" as a structural element that places young people as a group characterized by lingering inequality and poverty, which significantly curtails the democratic quality of today and tomorrow's societies (Tezanos & Díaz, 2017; Observatorio Social La Caixa, 2017). Under worsening conditions of precariousness, according to these studies, the capacity of young people to access the public sphere is doubly hindered: On the one hand, the youth find themselves in a situation of inferiority in public debates; on the other hand, the problematic that results from their secondary role goes largely unnoticed as a structural social issue.

The present case builds upon the first results of the research developed within the framework of the H2020 EURYKA Project. A study of the public policies and practices promoting youth inclusion and participation was recently carried out, across the nine countries of the project (EURYKA, 2017). Youth agencies were one of the aspects that had been taken into account. The sampling focused on contemporary policies, including recent changes related to the economic crisis. The results of this particular study placed Spain at the bottom of the list, having obtained the only negative score as far as government policies on youth agencies are concerned. This result reflected the dissolution (decreed by law in 2014) of the youth independent agency Spanish Youth Council (CJE), as well as the fact that Spanish youth demands regarding this decision went unanswered.

This article will present the results of a research addressing the question of how a relevant issue remains of secondary importance in the public sphere. It aims to look at how the dissolution of the CJE has been reported in the Spanish press, as well as the the way in which Twitter has been used to put the issue on the citizens agenda.

2. Context

Spain has two legally constituted youth agencies: The Youth Institute (Instituto de la Juventud – INJUVE) and the Youth Council (Consejo de la Juventud de España - CJE). Whereas the INJUVE is a governmental body that provides public services to the youth under the direction of a policy officer appointed by the Executive power through the corresponding Ministry, the CJE is an autonomous organism composed of 60 associations and youth organisations from across the country, and which representatives are elected and not appointed by bureaucrats. It is in charge of developing specific programs tackling social inequalities affecting young people. The CJE's Presidency and Permanent Commission are chosen by the entities that take part in the Council's General Assembly. Furthermore, the CJE is the Spanish agent in the European Youth Forum (YJF).

Five years ago, in a context of economic crisis in response to which the EU demanded austerity measures, the Spanish government decreed the Organic Law 2/2012 on Budgetary Stability and Financial Sustainability and created the Commission for the Reform of Public Administrations (Comisión para la Reforma de las Administraciones Públicas, CORA). It was then entrusted to carry out a comprehensive study of Public Administrations in order to identify areas of improvement and to propose a course of action. The CORA Executive Report was submitted to the Council of Ministers on June 21, 2013. It recommended the dissolution of the CJE (among other agencies), arguing that its functions duplicated those of the INJUVE. The Council of Ministers agreed on a bill that would eliminate the Youth Council, claiming that its suppression would bring savings of about EUR 4.3 million to the national administrative budget. The CJE was one of the smallest organisms inside the Administration (0.08% of the budget of the ministerial structure) and was already subject to a 54% budget reduction during the period 2008-2012 (CJE, 2013).

As a result, defenders of the CJE started an online campaign, first on the Internet at the URL http://salvemoselcje.com/, and later on Twitter (with the hashtag #salvemoselCJE). "Salvemos el CJE" (meaning in English "let us save the CJE") was a campaign aimed at denouncing the fact that the CJE's "restructuring" process was, in fact, a means of making it disappear. Defenders of the CJE criticized the political bias of this measure, in line with the well-known critical positioning of this organism vis-à-vis the Government's youth policies.

The Law of Rationalisation of the Public Sector was approved in September 2014 (Ley 15/2014). It declared the dissolution of the CJE and its subsequent conversion into a private entity. This was followed by a long period characterized by an absence of news regarding this issue. A few years later, on July 20, 2017, the CJE and the INJUVE signed an agreement to unlock the situation. During the negotiation between both agencies, the Secretary of State for Social Services and Equality was also present. It culminated with the signing of the draft of the Royal

Decree that will govern the future Spanish Youth Council as a private entity. In its press release on July 21, 2017, the CJE reported that the processing of the legislative decree had begun, although further changes in the text could take place until its final publication. None of the newspapers analysed in this case study mentioned this event, just like on Twitter, where the campaign #salvemoselCJE came to an end in November 2015 (the hashtag has never been used since).

3. Theoretical framework

This article builds upon some of the theoretical premises that try to shed light on the formation of public opinion and the processes of deliberation. In relation to this, it is essential to go back to the debate between theories of deliberative democracy, based on the works of Habermas, and theories of agonistic pluralism, of which Mouffe is a prominent representative. The Habermasian conception of the public sphere and communicative action starts from the understanding of deliberative processes as opportunities for consensus (Habermas, 1994). Agonistic pluralism criticizes, however, that this consensus can only be built at the expense of the dissenters' voice. Mouffe argues that the constitution of citizens as political subjects goes through their identification with the values that define democracy, not understood as universal and normative values, as Habermas held, but as values that give meaning to the different conflicting identities that make up society (Navarro, 2014).

> The Twitter activity surrounding the #salvemoselCJE campaign very much resembled an "echo chamber" in which all users agreed, effectively canceling the potential for debate beyond this "circle" of CJE defenders. Spanish youth political demands do not succeed when only their interests (as young people) are at stake. The results of the study suggest that the increased potential for visibility offered by social media is not always maximized and does not necessarily alter the prominence of an issue in the public sphere.

At present, cyber politics introduces an important questioning of both perspectives. Like never before, social networks open new forms of political expression that give rise to an interconnected public sphere, in which immediacy marks the rhythm of communication (Cotarelo & Gil, 2017; Kurban, Peña-López, & Haberer, 2017). However, we are now also witnessing the hegemonization of some forms of government in which statism or immobility of democratic principles in times of crisis generate an increase in inequality. Thus, while the technological revolution seems to open up a scenario in which agonistic pluralism is possible, the truth is that even in a context characterized by multiple voices and the right to communication, the dissolution of counter-hegemonic discourses is still possible.

The configuration of the citizens agenda (Miralles, 2001) must confront the problem of the atomization of the social subject, while the media agenda seeks to preserve its privileged position in the expression of public opinion (Coleman & Ross, 2010). One can wonder whether the factors that currently put forth or silence a given controversy can simply be justified as consequences of the increased complexity of communicative action or if they continue to respond to old schemes of political action. Beyond the technological determinism that accompanies the emancipatory vision of the new media (Castells, 1996), it is necessary to consider whether the mediations about which Martín-Barbero (1987) was talking have been strengthened or weakened by the advent of social networks. Which groups are effectively capable of accessing (and transforming) the spaces of deliberation?

Several works take a critical stance against the stigmatization of young people with an image of apathy, consumerism, and anomie (Cammaerts & al., 2014; Chou & al., 2017). Authors such as Tezanos and Díaz (2017) have come to equate the political relevance of the issue of the youth with the former one of the working class. The economic and social crisis manifests itself particularly among young people, who often have to delay the age of economic and social emancipation. According to Eurostat, the youth unemployment rate in Spain was 40.5% in

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2017 (which puts the country in second place, behind Greece, in terms of youth unemployment in Europe).

This being said, the youth have not always assumed a passive role (Giugni & Lorenzini, 2017). In Spain, for instance, the organization –by the youth– of massive citizen mobilizations such as the one of the 15M (Indignados movement) have proven that ICTs offer key advantages for activism (Hernández, Robles, & Martínez, 2013) and that in certain circumstances these movements have the capacity to influence media coverage (Casas & al., 2016; Monterde & al., 2017), although other studies have proven that the relationship between journalists and activists remains a difficult one (Micó & Casero-Ripollés, 2014). We can also highlight their capacity to access social capital through the use of mobile technology (Vidales-Bolaños & Sábada-Chalezquer, 2017), or their active participation in the network society (García-Galera, Del-Hoyo, & Fernández, 2014). What makes the political action of these young people different from that of other generations in Spanish democracy is that, despite their greater use of communication technologies, they have neither the effective capacity to alter the status quo nor ways to influence the political decisions that affect the country's future. The dissent that the youth can manifest is diluted in a public sphere that reproduces the discourse of the normative and the prescriptive, and that provides, at last, no room for controversy.

4. Methodology

A quantitative approach was used to study the prominence of the "Salvemos el CJE" campaign in the public sphere through the press and Twitter. On the one side, a content analysis was performed on newspaper articles that included the keyword phrase "Consejo de la Juventud de España". On the other side, a Twitter analysis of the campaign against the CJE's dissolution was performed by looking at the use and circulation of the hashtag #salvemoselCJE.

The choice of (and limitation of the study to) these two media follows the initial hypothesis that the traditional public sphere does not end up being reshaped or supplanted by the "new public sphere" (Castells, 2008) for the mere fact of providing new online opinion and political spaces. To test this hypothesis, the following objectives have been set:

• Demonstrate that the configuration of the media agenda about the dissolution of the CJE has been determined more by the journalistic routines than by the editorial lines (or the ideological slant) of each specific newspaper.

• Demonstrate the low impact of young people's voice on this issue, which is partly due to its articulation around offline organizational structures that are neither able to act as primary sources for mainstream media nor adapted to (or with little capacity for integration in) the dynamics of online networks and social media communication.

4.1. Newspaper analysis

The database used for retrieving data from the Spanish newspapers was Factiva (a database with more than 32.000 sources, 100 of them from Spain). A set of 22 sources were selected according to the criteria of daily publishing and national coverage: "20 Minutos", ABC, "El Confidencial Digital", "El Confidencial.com", "Crónica Global", "El Correo", "El Diario Montañés Online", "Diario Siglo XXI", "El Diario Vasco Online", "El Diario.es", "Diariocritico.com", "El Huffington Post-Spain Edition", "Elmundo.es", "El País", "El Pais.com", "El Español.com", "Gaceta.es", "El Imparcial", "El Independiente", "Infolibre", "El Mundo", "El Periódico de Catalunya".

The data retrieval covered a five-year period, from 2012 (when the campaign started) to July 2017 (when the CJE signed an agreement on its dissolution). No data appeared from 2015 onwards. This situates the press coverage of the CJE's dissolution between the years 2012 and 2014.

A codebook was used in order to code the 81 retrieved articles. Two variables were identified: The coverage and the degree of visibility assigned to the CJE's dissolution, as well as the temporality (permanence of the news in the media agenda). As far as the first variable is concerned, the codebook established four types of news: (1) News that mentioned the CJE somewhere in the article, but did not mention the agency's dissolution; (2) News that mentioned the CJE's dissolution, but that was not specifically about the CJE and/or its dissolution; (3) News about the CJE's dissolution; (4) News about the dissolution that identified the CJE as a source.

4.2. Twitter analysis

The Twitter analysis looked at the use and circulation of the hashtag #salvemoselCJE. The study consisted in an analysis of the tweets that were posted between the 20th of June 2013 (date of the first tweet including the campaign's hashtag) and the 23rd of November 2015 (date of the last tweet).

The study also looked more specifically at the tweets that were posted on the 11th of September 2014 (date of the announcement of the Spanish Congress Plenary's approval of the Law 15/2014). By looking at the Twitter activity on such a crucial date, the study aimed to identify the key actors of the CJE's defense and their interactions.

The purpose of the analysis was to assess the virality of #salvemoselCJE on Twitter during the campaign, following Gladwell's model, which studies the users as sources, the content and the spread of the messages (Gladwell, 2000). By looking at the Twitter activity over the course of one day, the study aimed to gather precise information on the type of account that issued each tweet, the number of followers that these had, the number of likes, retweets, and answers that each tweet received, as well as the positioning of the tweets in relation to the campaign.

A set of related hashtags was also identified, and a tag cloud analysis was performed, through TagCrowd, which helps to visualize the frequency of the different hashtags that were used. Twitter accounts were identified and classified as "institutional" or "individual", and (in both cases) additional data on the identity of each actor (in terms of political affiliation, belonging to a group, etc.) was gathered whenever possible. Each of the accounts was subsequently typified in relation to a specific network profile. In this case, the effort was centred on confirming the existence or absence of "influencers" (actors who run accounts with more than 100.000 followers) (Jivkova-Semova, Requeijo-Rey, & Padilla-Castillo, 2017).

5. Analysis and results

This section will focus on the quantitative analysis of the 81 newspaper articles that were published between 2012 and 2014, and the 184 tweets that used the hashtag #salvemoselCJE on September 11th, 2014. This analysis will evaluate the extent to which the CJE's dissolution was treated as a controversy in the press and on Twitter. Based on the analysis, this section will try to answer the following research questions:

5.1. Did the CJE's dissolution represent a controversial issue in Spanish newspapers?

5.1.1. How long had the dissolution of the CJE been visible for?

The first appearance of the CJE and/or its dissolution in the news dates back to the 11th of March 2012, one month before the approval of the Law 2/2012. The last news published on this issue appeared on the 28th of December 2014, two months after the publication of the Law 15/2014).

As figure 1 shows, June and August 2013 were the most active months, with 14 and 12 articles, respectively. This was due to the fact that on the 21st of June 2013 the Council of Ministers announced its decision to dissolve the CJE as part of a larger plan to rationalize the public administration. In August 2013, the CJE released a report on youth housing opportunities in Spain.

Later, on the 27th of July 2017, the CJE and the INJUVE finally signed the dissolution agreement. Between the 21st and the 31st of July 2017, 15 newspaper articles mentioned the CJE but none of them addressed the issue related to the press release.

5.1.2. Did the CJE's dissolution occupy a prominent place in the news?

The CJE was mentioned in 81 articles of the 22 newspapers during the campaign's timeframe. A significant majority of the news (86.5%) merely mentioned the CJE and/or its dissolution somewhere in the article. The remaining 11 articles (13.5%) were about the CJE, of which 8 (9.8% of the total) were about its dissolution. Only three newspapers ("El Diario.es", "El Periódico" and "Infolibre") published articles about the CJE's dissolution, and in which the CJE was identified as a source ("El Diario.es" published three articles, and "El

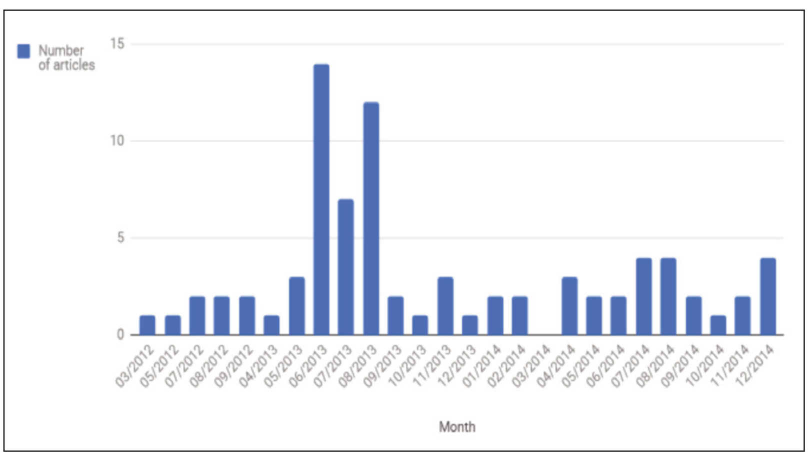

Figure 1. Monthly evolution of the number of news articles during the campaign.

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Periódico" and "Infolibre" both published one). The newspaper that covered this issue the most was "El Diario".es, which dedicated three news articles to the CJE's dissolution, and relayed the CJE's voice as a source.

The press coverage of the CJE's dissolution varied significantly from one newspaper to the next. While "El Diario" published 3 articles on the dissolution of the CJE (out of 4 articles mentioning the CJE), other newspapers such as "El Mundo", "La Vanguardia" or "ABC" did not publish any (out of 12, 4 and 8 articles mentioning the CJE, respectively). Moreover, out of the 81 retrieved articles and the 11 articles that were about the CJE and/or its dissolution, only 8 had "Consejo de la Juventud de España" or "CJE" in the headline.

This discrepancy and the dramatically low number of articles that directly addressed the dissolution of the CJE show that this issue has at no point been considered as an issue of primary concern, despite the fact that the youth represent an important part of the Spanish population. Indeed, 10.533.437 people (22.59% of the Spanish population) were between the ages of 15 and 35 in 2015 in Spain (INJUVE, 2016).

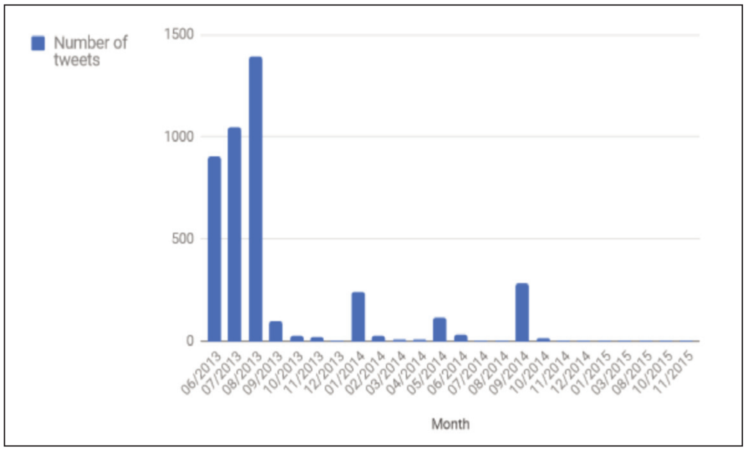

Figure 2. Monthly evolution of the number of tweets (#salvemoselCJE) during the campaign.

5.2. How influential has the hashtag #salvemoselCJE been on Twitter?

5.2.1. How long has the campaign been active for on Twitter?

There was a first period of intense activity between the 20th and the 30th of June 2013, during which a total of 902 tweets were posted. As shown in Figure 2, the next peaks of activity were few and far between. A more detailed study focused on the last peak of the 11th of September 2014, when the Spanish Congress Plenary announced the approval of the Law of Public Sector Rationalization which would definitively dissolve the CJE (although, as Figure 2 shows, this was not the most active period in terms of the number of tweets).

5.2.2. What was the impact of #salvemoselCJE on September 11th 2014?

The hashtag #salvemoselCJE appeared in 184 tweets from 123 accounts on the day the Law 15/2014 was approved. The most significant result of the data analysis shows that there was no disagreement or controversy within the content of the #salvemoselCJE campaign, as its name suggests. Indeed, as it is often the case on Twitter, the activity surrounding the #salvemoselCJE campaign very much resembled an "echo chamber" in which all users agreed, effectively canceling the potential for debate beyond this "circle" of CJE defenders.

Figure 3 below illustrates the relevance of each of the hashtags that were used within the campaign. The size is proportional to the frequency of appearance.

5.2.3. Did the information circulate broadly on a crucial date (September 11th, 2014)?

Around half of the 184 tweets that have been analysed were published by institutions and the other half by individuals. There were a few more individuals (65) than institutions (58) tweeting the hashtag, but this result is not clear-cut as a significant number of them (44.6%) could be identified as being linked to an institution. These results suggest that the Twitter protest that followed the approval of the Law 15/2014 (the day of its announcement) had a potentially significant impact among the members of offline (and probably linked) organisations. This structure shows a centripetal flow of connections, placing the CJE as a very important node in the information circulation (this coincides with the fact that the CJE works as an umbrella organisation).

The tweets including the hashtag #salvemoselCJE posted on September 11th, 2014, did not have a significant impact in quantitative terms, mainly due to the actors' low capacity for influence. 8 institutions (6.5%) had more than 10.000 followers (Table 1). The institutional account with the highest number of followers was that of UGT union (with 32.000 followers), whereas only one individual account exceeded this amount (a journalist with 78.600

followers who tweeted once and got one retweet, 16 likes, and two replies). This means that none of the actors of this campaign could be identified as "influencers". According to Jivkova-Semova & al. (2017), this category can only be attributed to accounts with more than 100.000 followers.

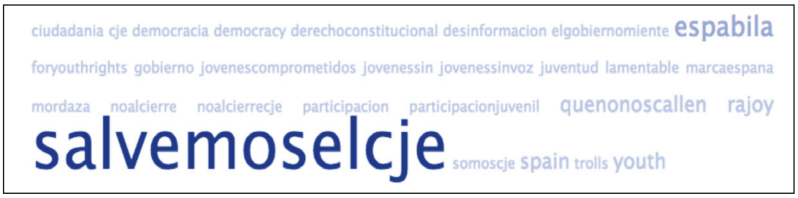

Figure 3. The relevance of related hashtags on September 11th, 2014.

Nevertheless, following Congosto (2015), among the Twitter accounts with the highest number of followers, five institutional users could be identified as "influencers" as their number of retweets was high in this context (the coefficient between the number of tweets and the number of retweets was bigger than 4). These "influencers" (INF) are represented in Table 1.

Congosto's Twitter actor classification in relation to their activity and impact (2015) has been used in order to analyse the institutional and the individual accounts. A relevant result has been obtained in relation to this question, as data confirmed that the activity surrounding #salvemoselCJE was not highly influential: almost 25% of the institutions and individuals were passive, in that their number of tweets was inferior to the average (1.6 tweets). Another 13.9% of the actors were considered as "isolated" users, as they did not receive any retweet nor any like. Only a small minority (4%) were identified as "networkers", as they published more tweets than the average, and received a proportional amount of retweets.

Table 1. Most followed institutions that tweeted #salvemoselCJE on September 11th, 2014

Account	#followers	#T	#replies	#RT	#likes	type	INF
Unión General de Trabajadores (UGT) @UGT_Comunica	32,000	2	2	13	1	union	no
Área de Juventud de Izquierda Unida @JovenesIU	30,100	1	0	14	3	youth party	yes
European Youth Forum @Youth_Forum	23,200	1	1	31	11	umbrella association	yes
Cumbre Social @SocialcumbreS	19,300	5	1	55	8	umbrella association	yes
EQUO Madrid @equomadrid	13,500	1	0	7	1	association	yes
Juventudes Socialistas de la Comunidad de Madrid @JSMadrid	11,700	1	0	21	2	youth party	yes
Federación de Scouts-Exploradores de España ASDE Scouts España @scout_es	11,000	3	0	66	20	scouts	no
Consejo de la Juventud España @_CJE	10,900	14	13	398	84	public agency	no

6. Conclusions

This article contributes to understanding the possible reasons why issues concerning young people's political claims in Spain do not reach the status of public controversies in the public sphere. In relation to the initial hypothesis, the results of the analysis suggest the idea that Spanish youth political demands do not succeed when only their interests (as young people) are at stake. The study has raised a paradox in describing a well-established and traditionally organized youth agency that fails in its attempt to reach the public sphere.

Following the first objective of the study, the results demonstrate that the newspaper coverage of the CJE's dissolution did not trigger any controversy. The evolution of this press coverage over time has shown that the relevance of the topic was determined by a journalistic routine that conceives the news under an ephemeral logic. This same routine placed the focus of interest on governmental action rather than on the social demands and activity of the "Salvemos el CJE" campaign. All the newspapers adopted the productive routine when placing the issue on the media agenda at the very beginning of the process. However, none of the analysed newspapers covered the outcome –whether positive or negative– of this issue, in July 2017. The CJE's dissolution exited the media agenda before becoming a public controversy. This statement confirms one of the main points of the article, as described in the second objective. That is, the idea that Spanish young people do not have access to political debates and do not reach the public sphere. Although their demands produce a questioning of the status quo, they are often dismissed by the press and seen as marginal. In general, their voice does not have a prominent place in the news.

The peaks of attention that the hashtag #salvemoselCJE received on Twitter largely coincide with the peaks of interest that the dissolution of CJE generated in the press. This result shows a parallel running of both the citizens and the media agenda. However, this does not mean that the press and Twitter share productive routines, but rather that their respective agendas follow the flow of the Spanish Government's decision making concerning the case under scrutiny. This could be confirmed by the fact that the peaks of activity (both circulation of news and tweets) coincide with the Government's political moves. This behavior can be seen as being normal when it comes to press coverage, but an organized civil society should not need to set its public agenda the same way.

Another finding helps to explain why young people's ability to reach the public sphere through Twitter has remained limited in the case of this campaign. As the case study shows, the high organisational capacity of the youth can prove useless when potential controversies are kept within the realm of "internal youth affairs". The campaign "Salvemos el CJE" has been kept within the very same networks that already exist offline in the form of youth organizations under the CJE's umbrella. Even if the Twitter hashtag #salvemoselCJE has circulated, it does not mean that young people's claims and demands can effectively transcend the walls of a "gated community". The Twitter discussion analysed in this case study shows how the lack of external actors expressing dissent could limit the success of the campaign, as far as there is no possibility to bring the issue "out there", particularly in the absence of an elaborated communication strategy. Youth matters remain, thus, mostly invisible to the broader society.

In this conclusion, the importance of reviewing principles of agonistic pluralism in light of the digital society can be stressed. Internet and social media open the possibility of competing with the dominant position of traditional media, which could lead to the configuration of a new public sphere, more open to a diversity of voices and issues. Notwithstanding, this should not be considered as a rule or as a given just yet. By considering the absence of coverage of the outcome of the case under scrutiny and contextualizing it, along with other such "silences" that have characterized youth issues, we could get a glimpse of the mechanisms that contribute to consolidating structural inequalities.

In future studies, it would be interesting to broaden the scope of the analysis beyond this particular case in order to better grasp the position and impact of youth opinions and youth-related issues in the public sphere, as well as within the wider realm of social demands. In this sense, one might call for a more arduous analysis of the way in which counterpublic discourses weigh on the public agenda through offline and online media (including audiovisual content). The study also points to the challenge of uncovering how youth agencies and campaigns can use social networks as effective spaces of political action instead of reproducing a usage pattern that, far from maximizing the significant potential of these online networks, leads to self-referencing and "ghettoization".

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YouTubers videos and the construction of adolescent identity

Los youtubers y la construcción de la identidad adolescente

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ABSTRACT

The main objective of this research is to analyze the content of YouTuber's videos that have the greatest impact on adolescents and their relationship with the construction of identity. The YouTube platform is one of the most commonly used by Spanish teenagers and around 70% of young people between 14 and 17 years of age prefer this network. YouTubers are perceived by young people as their equals, close people who share similar traits to their own, which facilitates rapid identification. A qualitative analysis of the content of 22 videos on the YouTube platform was carried out using the Atlas.ti program. The analysis led to several emerging codes related to the construction of adolescent personal identity. Most of the messages relating to personal identity were aimed at transmitting the self-impression of the YouTuber and the relationship of that self-impression with his gender identity, sexual orientation, and vocational identity. Also, family and peers appeared in the videos, especially as providers of social support. Teen followers include messages to support YouTubers, express their identification with the messages and use comment spaces to describe their own experiences, expressing the same concerns in the configuration of their identity. It is necessary to take into account this new space of interrelation to understand the development of young people's identity.

RESUMEN

El objetivo general de esta investigación consiste en analizar el contenido de los vídeos de los youtubers de mayor impacto entre los adolescentes y su relación con la construcción de la identidad. La plataforma YouTube es una de las más utilizadas por los adolescentes españoles, ya que alrededor del 70% de los jóvenes entre 14 y 17 años prefieren esta red. Los youtubers son percibidos por los jóvenes como sus iguales, personas cercanas que comparten rasgos similares a los suyos, lo que facilita la rápida identificación con ellos. Se ha realizado un análisis cualitativo del contenido de 22 vídeos de la plataforma YouTube mediante el programa Atlas.ti. El análisis ha dado lugar a varios códigos emergentes relacionados con la construcción de la identidad personal en la adolescencia. La mayoría de los mensajes sobre la identidad personal estaban orientados a transmitir la autodefinición que hace el youtuber sobre sí mismo y la relación de esa autoimagen con su identidad de género, orientación sexual e identidad vocacional. Además, la familia y los iguales aparecen en los vídeos, especialmente como proveedores de apoyo social. Los seguidores adolescentes incluyen mensajes de apoyo al youtuber, manifiestan su identificación con los mensajes y utilizan los espacios de comentarios para exponer sus experiencias personales, expresando las mismas inquietudes en la configuración de su identidad. Es necesario tener en cuenta este nuevo espacio de interrelación en la comprensión del desarrollo identitario de los jóvenes.

KEYWORDS | PALABRAS CLAVE

Adolescence, identity, adolescent development, psychology, youtubers, YouTube, social network, Internet.
Adolescencia, identidad, desarrollo adolescente, psicología, youtubers, YouTube, redes sociales, Internet.

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1. Introduction and current situation

Since the Erikson Theory (1971), experts in developmental psychology have considered that the construction of identity constitutes one of the most important challenges faced by adolescents (Zacarés, Iborra, Tomás, & Serra, 2009). According to theory, identity is a coherent conception of oneself that includes the targets, values, and beliefs to which we make a firm commitment. In building their identity, young people need to solve some issues: the choice of occupation, the values they commit to (religious, political, ethnical, etc.) and the formation of a satisfactory gender and sexual identity, which are the different scenarios proposed (Erikson, 1971). Identity is not formed in the same way in all these scenarios but is rather a complex process in which these issues are solved at a different pace, depending on the adolescent's features and his/her environment (Bosma & Kunnen, 2001). Identity also requires a reasonable integration of the past, present, and future aspirations. Nowadays, it is considered that the formation of identity does not start and finish in the adolescent stage, but rather constitutes a long and gradual process of extraordinary complexity (Kroger, 2003).

The notion of identity has a psycho-social nature; built on the intersection of individual personality, self-concept, inter-personal relations and the broadest possible context of a person's surroundings (Trimble, Root, & Helms, 2003). One of the most relevant contexts in the construction of identity is undoubtedly the Internet and social networks, which have become an area of social inter-relation for adolescents, and in which they can associate with their peers on platforms such as Instagram, Facebook, and YouTube (Ahn, 2011; Barker, 2009). In Spain, the use of social networks and the Internet by children and adolescents has increased substantially in recent years. The National Institute of Statistics (INE) reported that 98% of young people between 16 and 24 years of age frequently use the Internet (INE, 2016). García, Catalina, & López-de-Ayala (2013) found that the sites most visited are the social networks, followed by shared video platforms. As far as the use of such platforms by young people is concerned, studies show that apart from entertainment and the search for information, social networks are used as a means of interaction with others that are considered as peers (Barker, 2009).

YouTube is one of the most frequently used platforms for downloading videos and is preferred by around 55% of young Europeans (Mascheroni & Ólafsson, 2014). In the case of Spanish adolescents, YouTube holds the second place (around 70% of adolescents between 14 and 17 prefer this network) after Facebook (Interactive Advertising Bureau, 2015). Whereas only a small percentage of adolescents and young people are active users (Gallardo & Jorge, 2010), the viewing of videos constitutes one of the most extended habits amongst European adolescents (Holloway, Green, & Livingstone, 2013). YouTube distinguishes between "standard YouTubers": those that create and share videos with friends and family and "special YouTubers": who interact with the community on line, receive comments and have subscribers in addition to offering suggestions and recommendations (Ramos-Serrano, & Herrero-Diz, 2016). You Tube channels represent a space for artistic and creative expression, thus providing a social connection with other YouTubers and followers (Chau, 2010). The majority actively interact with their real and imaginary audiences (Ding & al., 2011). The audiences are active, as they can directly interact with the YouTuber who is admired and the proximity to the user is the key to success (Berzosa, 2017). The influence of YouTubers can be measured by the number of subscribers and video views on their channel (Burges & Green, 2009).

YouTubers are perceived by young people as peers, although also with qualities (creativity or talent) that they admire. They are also close to their followers in the sense that they share similar features (age, language, culture, social context, etc.) with the adolescents that follow them. This facilitates rapid identification (Westenberg, 2016). Another important feature is the possibility of interaction, given that the comments made by adolescents normally receive a reply from the YouTubers, which makes them appear as approachable and friendly (Berzosa, 2017; Chau, 2010). This makes them a major social reference in the construction of adolescent identity (Westenberg, 2016).

Despite the growing interest in the influence that the Internet and social networks have on the construction of adolescent identity, there are a very few research studies that provide relevant information. One of the main areas of research is on the use of the Internet and social networks to experiment with identity (Eftekhar, Fullwood, & Norris, 2014; Valkenburg, Schouten, & Peter, 2005). Other studies are focused on the psychological well-being of adolescents. For example, according to Valkenburg & Peter (2009), on line communications encourage positive relations in adolescence, promoting social connection and personal well-being. A recent research study showed that children and adolescents, as opposed to adults, use video platforms as a scenario to act, tell stories and express their opinions and features of their identity (Yarosh, Bonsignore, Mc Roberts, & Peyton, 2016).

By extrapolating this research, it can be expected that something similar will take place with the use of videos on YouTube, They can become topic of conversation amongst young people, encouraging firstly a sense of belonging and social identification, and secondly, an area in which they can explore and experiment with their identity. In fact, children and adolescents have become ardent followers of YouTubers (García & al., 2016). Also, YouTube enables adolescents to search for and join groups of people with the same interests, thus constituting a new way of making friends online (Lenhart, Smith, Anderson, Duggan, & Perrin, 2015). However, it is worth outlining the characteristic differences between YouTube and other platforms, firstly because of the lower degree of interaction they may offer, and secondly because of the differentiating role between active users –that constitute a minority- and passive users. These characteristics may largely favor the role of YouTubers as social references in the construction of identity. The overall aim of this study is therefore to analyze the content of the videos of certain YouTubers and their relationship with the construction of adolescent identity.

> There are normally two identity scenarios that are addressed by YouTubers: gender identity together with sexual identity and vocational identity. They show the process they followed to build their gender and sexual identity; the majority do it from a present context, describing how it occurred, why they decided on particular sexual orientation, what gender they identify with, who supported them, what doubts they had, what are their emotional experiences, etc. It should be mentioned that the videos with the most followers are those that deal with sexual orientation issues, especially in the discovery of homosexuality and bisexuality, as well as the definition or identity of a transsexual gender.

2. Materials and methods

2.1. Design

This study has a qualitative design based on the analysis of content that enables the interpretation of messages, texts, and discourse to elaborate and process relevant data on the conditions in which it takes place and is used (Piñuel-Raigada, 2002). A specific analysis was carried out of the messages transmitted in some of the videos available on different YouTuber's channels. The methodology recommendations proposed by Andréu (2000) were used in the analysis of the manifest or explicit content (such as the title of the video and number of hits) as well as the latent content (adolescent identity construction scenarios proposed by Erikson, 1971).

2.2. Definition of the sample unit

The first step was to choose a series of videos according to certain criteria. Since YouTubers normally have more than one type of video on their channels and organize their videos in a subjective and varied way, the classification of content on YouTube constitutes an arduous task (Codina, Carandell & Feixas, 2014). Bearing in mind the overall objective of the study and the indicators recommended in similar research (Burgess and Green, 2009; Yarosh et al., 2016), we chose the videos according to the following criteria: 1) those that include content related to adolescent identity construction, those based on the scenarios proposed by Erikson (1971): religious, vocational, ethnic and gender identity; according to the title; 2) those with at least 10,000 hits to account for the interest by followers; 3) the YouTubers with more than 100,000 subscribers on their YouTube channel in Spanish (see Table 1). The final choice was comprised of 22 videos belonging to 10 YouTubers (see Table 1). The YouTubers had an age ranging from 24 to 32 in 2017. The videos were published on the YouTube platform from 2011 to 2017, with an average number of 1,343,000 hits (Table 2).

2.3. Qualitative analysis of the data

The content analysis was carried out with the qualitative data analysis program Atlas.ti (version 7.0). To identify the quotes, generate the codes and determine the networks of relationships in the YouTubers' discourse, the videos were entered into the Hermeneutic Unit for analysis (Corbin & Strauss, 2008). The literal transcription of the content of the videos and the viewers' comments constituted the sample unit.

Table 1. YouTubers and subscribers

You Tuber	* No. of subscribers	Youtuber	* No. of subscribers	You Tuber	* No. of subscribers
LuzuVlogs (luzugames)	2.495.314	Kowai Nana	221.035	Uy Albert	281.431
Álex Puértolas	601.368	Adelita Power	419.493	Wismichu	5.565.688
Victoria Volkova	630.943	Dulceida	1.185.653	Yelow Melow	1.552.233
Toniemce	161.115				

*The number of subscribers is at the date on which the videos were selected (June 2017).

3. Results

3.1. Identity construction and scenarios

In the videos analyzed, YouTubers talk about their personal experiences about their physical changes during adolescence and describe their ideas and beliefs of who they are (self-concept), especially in those called "draw my life" and also provide information on how they value themselves (self-esteem). In general, telling your life story is a common topic for YouTubers as a strategy to emotionally connect with followers and for the latter to identify with the YouTuber.

The analysis of the videos showed different stages of self-concept development. There are references to the early abstractions of childhood and beginning of adolescence; for example "when I was little, I was fat, and none of the girls took any notice of me" (video 13), and "I was very nasty as a little girl" (video 6). There were also references to the present and the relationship between different traits: "I have always been a good kid, with good grades and lots of friends" (video 14), and multiple self-concepts: "I describe myself as a creative and stubborn person who hates vegetables, the beach, the gym, parties, flamenco... I like mum's cooking, going to the movies, staying at home… Yes, I'm like a grandfather…" (video 14). Descriptions include diverse self-concepts that are typical at the end of adolescence when formal thinking allows for the integration of different roles that are sometimes opposite, such as the like for parties in opposition to staying at home. These different "selves" do not produce feelings of incoherence or dissatisfaction.

About self-esteem, we observed a reference to the construction of a physical image during childhood and adolescence, and the judgment made of it (Figure 1). There are also references to the importance of believing in oneself: "when you believe in yourself and accept your-

Table 2. Videos analyzed

Videos	No. hits *
1. AP y la regla (AP and the period)	322.156
2. No soy Feliz (I'm not happy)	223.828
3. ¡Querámonos Un Poquito Más! (Let's ask for a bit more)	690.511
4. Mi Operación De Pecho (My breast surgery)	1.501.811
5. Mi orientación sexual (My sexual orientation)	1.992.030
6. Mi experiencia en el Instituto: la rarita de clase (My school experience. The nerd)	115.737
7. Cosas típicas de mi adolescencia. Te echo de menos msn... (Typical things about my adolescence. I miss you msn...)	66.281
8. Infidelidades ¿Qué sienten ambas partes? (Infidelity. What do both sides feel?)	51.538
9. La bisexualidad: mitos y leyendas (Bisexuality: myths and legends)	139.161
10. Cambio mi forma física (I change my physical appearance)	333.360
11. El camino del éxito (The road to success)	7.015.936
12. Draw My Life 2.0	115.075
13. 50 cosas sobre mí (50 things about me)	105.533
14. Draw My Life	267.154
15. Mis tatuajes y su significado. (My tattoos and their meaning)	163.865
16. Como salí del closet (How I came out of the closet)	1.699.789
17. Él no sabía que yo era trans (He didn't know I was trans)	1.000.759
18. Hombres que salen con chicas trans (Men that go out with trans girls)	1.714.308
19. Draw my life	633.543
20. Respondiendo a vuestras preguntas (Answering your questions)	3.351.988
21. ¿Qué haces con tu vida? (What are you doing with your life?)	376.245
22. Mi orientación sexual (My sexual orientation)	426.597

** The number of subscribers is at the date on which the videos were selected (June 2017).

self… it is harder for them to hurt you", "look in the mirror and see the best version of yourself" (video 2).

The identity construction process is not a continuous or unitary one but rather takes place in different stages and scenarios throughout the life cycle that encounter their most significant expression in adolescence. The dimensions of gender identity building, sexual orientation and vocation are particularly mentioned in the content shared on YouTube.

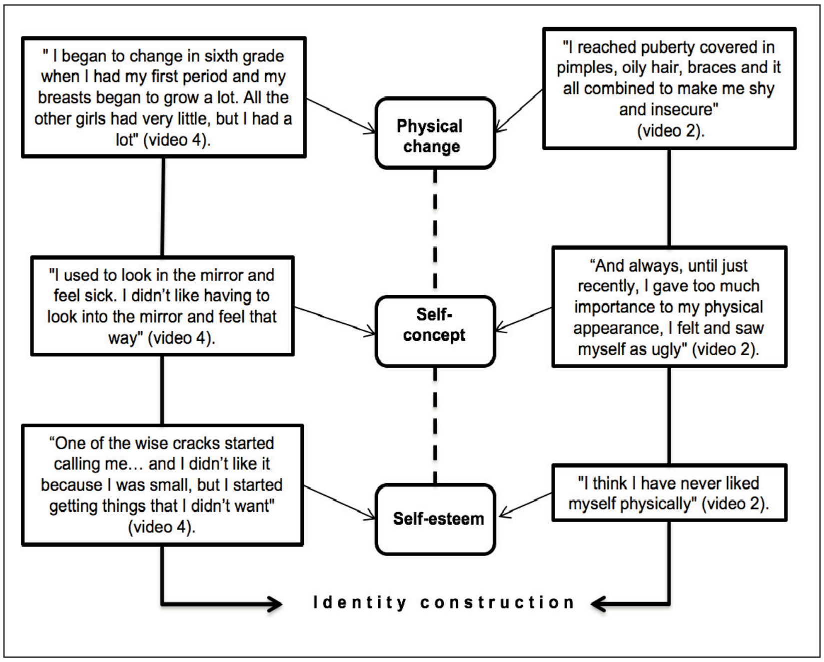

Figure 1. Example of quotes in the construction of identity.

3.2. Gender identity and sexual orientation

YouTubers talk about their gender identity and sexual orientation, with special reference to the social construction that exists in their immediate environment. They also describe the challenges and difficulties involved in choosing a gender identity such as homosexuality, bisexuality or transsexuality (Figure 2). This type of content is the most common on YouTuber's channels and is also normally the most viewed. For example, one of the videos called "my sexual orientation" has almost two million views.

What also exist are specific requests from followers to take a position or express his/her opinion on gender identity and sexual orientation. This is the case of a YouTuber who highlights the demand for her to define her sexual orientation: "There are many people that still ask about my sexual orientation, are you a man or a woman?" (video 22). She gives her opinion, explains the process and how she feels about her sexual orientation: "Now, I am fine, very comfortable with my sexuality" (video 22). On the one hand, she accepts her sexual orientation with a high degree of self-confidence and explains it to her followers and, on the other, responds to the demand for media exposure to have a successful YouTube channel.

Another transsexual YouTuber describes the evolution of his gender identity over several years on his YouTube channel. In his initial videos (2011), he defines himself as homosexual, to later talk about his experiences during the transition (hormones, surgery, etc.) and finally as a transsexual. In a 2011 video (video 16), he talks about his homosexuality: "I was always very feminine, most people knew that I was gay". Later, the transition began, and his videos express a new gender identity as a transsexual. In videos from 2015 and 2016, he describes himself as a "trans girl" with new gender identity: "I am a woman, and I feel like a woman, regardless of my physical appearance" (video 17). Another YouTuber talks about bisexuality in her videos (video 9): "My mother encouraged me to try and see if I like it, without accusing me of being a lesbian or bisexual in a bad way".

The videos show the active dynamics of gender identity construction in which adolescents pass through different stages of reflection and re-construction where the cultural context has a major influence (Rocha, 2009). As pointed out by Moreno (2005), gender identity is part of psychological development. Due to family and cultural messages and one's corporal image, it becomes evident from a very early age and is therefore incorporated into individual subjectivity.

3.3. Vocational identity

The choice of vocation by adolescents is an important stage that is related to their autonomy and their future life project. The videos analyzed show some of the factors that influence this process, such as uncertainty,

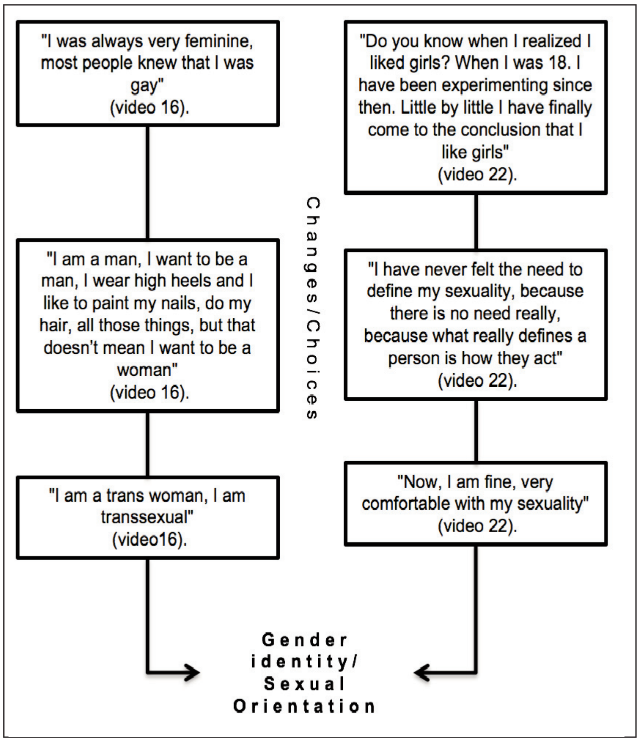

Figure 2. Example of quotes relating to gender identity and sexual orientation.

complexity, and significance (Rivas, 2003). Uncertainty implies having different options and a lack of knowledge of them, for example, "at the time, I didn't know if I wanted to be a paleontologist, marine biologist or an audio-visual communications expert; I even thought about studying journalism" (video 6). Complexity appears when the information is highly consistent and disperse and is not controlled by the individual: "I still have three years to decide, but if the guy I like so much and my good friend study science, even though I'm really bad at science, I will go with them" (video 6). The significance is related to the vocational choice being aimed at reaching a target that a person strives to achieve, for example, "I realized that I wanted to be a dancer" (video 12). This intention of achieving a target motivates action and directly influences vocational conduct: "I was always last in class and, in the end, went to learn dancing and reached my goal of being a professional dancer" (video 12); "my dream ever since I was very young was to earn a living making people laugh, telling stories, informing people". "I decided to go all out with YouTube" (video 13). This is related to the construct of vocational maturity, which refers to the degree of knowledge, skills, and abilities a person possesses, as compared to his/her peers, and is necessary to effectively confront future academic planning (Rivas, 2003).

We also observed the consequences that a vocational decision may have when it is not in line with a young person's objectives: anxiety, ill-feeling and lack of motivation. For example: "I was down and started to miss class… "; "this bad feeling… also produced anxiety" (video 6). The emotional process in vocational identity plays a very important role, as it is necessary to manage emotions before and after a decision is reached (Bisquerra, 2015). Together with the changes that occur in adolescents and the uncertainty about their future, this stage can be a time of stress for young people (Figure 3).

3.4. Social relations

The videos show a positive evaluation of parents in particular, and of the family at large, with messages of affection, respect and admiration and, above all, gratitude. For example: "I was born in Alcira and grew up in the best possible family environment that one could have" (video 14). Other videos contain expressions of affection and admiration for parents: "I wanted a tattoo that represented my parents because they are what I most love in this world" (video 15).

Concerning the family support, the videos particularly refer to gender identity. The family is an important factor in developing and maintaining adolescent self-esteem, and family support facilitates self-confidence in young people during the identity process (Demaray & al., 2009). For example: "I am very lucky to have my parents, they have brought me up with respect, but are very open; they have given me the freedom to choose my own life" (video 5).

Peers (friends and partners) are important references for adolescents and young people (Demaray & al., 2009). The comments by YouTubers relating to peers are incorporated into the topics included in their biographies. For example: "I met my best friend at school..., until I broke my arm, we were not real friends… that's what happens when you fight; you end up being friends" (video 12). Concerning partners, there are opinions on love and infidelity. "I cheated on my first girlfriend, many times and I regret it" (video 20). These videos show how the interpersonal relations between adolescents and their partners feature emotions and feelings that are new experiments and influence the composition of their peer groups (Connolly & Mc Isaac, 2008).

3.5. The role of YouTubers and their followers

The type of interaction between YouTubers and their followers is important. On the one hand, YouTubers act as role models, endeavoring to make followers identify with their discourse and also attempting to gain more subscribers. It is common for videos to end with an express request to "subscribe to my channel". Also, advice on each topic is normally added to the videos. Followers are able to express their like or dislike of the video and use the comments space to express their ideas and opinions on the topic.

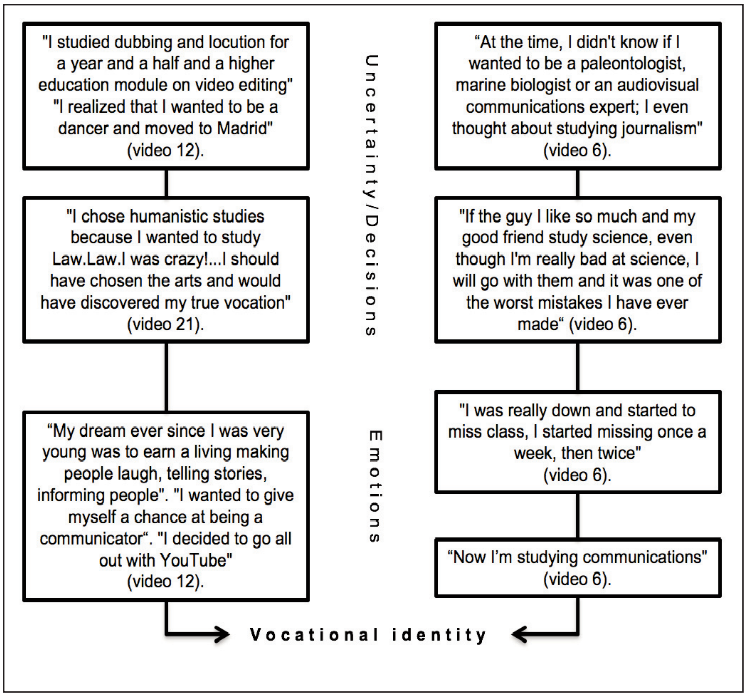

Figure 3. Example of quotes on vocational identity.

In the case of YouTubers, the advice is normally related to the topics discussed in the videos, for example: "I'm not happy, but I'm trying. And you? Are you trying?" (video 2). This type of advice is more frequent in videos in which the YouTuber expresses personal opinions, for example when talking about sexuality: "my first advice is that you experiment because you don't know if you like men or women until you experiment" (video 9).

There are also videos designed to give or suggest recommendations to followers on how to act; for example, in video 10, with more than 7 million views, the YouTuber explains his ideas on how to overcome personal challenges: "the most important thing you need for any project is your mind"; "stop blaming other people around you for your failures". Followers repeatedly send messages of support and gratitude to YouTubers, for example "I am so grateful for this type of video", and of identification with the content; for example "I identify, because right at this moment, I am in that phase..".. It is less frequent to see messages rejecting videos.

4. Discussion

The overall objective of this work was to analyze the content of certain videos and their relationship with adolescent identity construction. YouTubers are a social reference for present-day adolescents, and the study shows how they use their videos to deal with topics related to identity construction. In their videos, the YouTubers seek to connect with their followers and gain more subscribers to their channel. This is where the followers can decide whether they like the videos and express their ideas about the topic. In this interaction, YouTubers not only entertain but also act. In certain cases, they become role models on key issues in the formation of identity, such as in the physical changes experimented during adolescence, self-esteem, self-concept, gender and vocational identity, and social relations, thus encouraging a connection with their followers (García & al., 2016; Westenberg, 2016).

YouTuber's videos constitute topics of conversation amongst followers, who write messages of support, gratitude and, on occasion, talk about their own experiences and even satisfy their curiosity by asking the YouTubers' questions. Less frequent are messages of rejection. They, therefore, encourage the belonging and social identification, as well as exploring and experimenting with personal identity by describing their own experiences and opinions on the topics discussed and even their doubts (Barker, 2009; Lenhart & al., 2015; Valkenburg & Peter, 2009).

It is important to highlight that YouTubers talk about their experiences in a current context: the transition phase from adolescence to adulthood, given that the average age of YouTubers is 27. This revolutionary "emerging adult" phase that they represent is characterized by gradual autonomy, psychological maturity, and productivity, amongst other features, offering a perspective that enables them to provide their thoughts "remotely", which means having overcome adolescence (Zacarés & al., 2009). This contrasts with the views of their followers who normally, in a current context are in an adolescent stage - and consider YouTubers to be people they should follow and admire for what they do as confirmed by previous studies (García & al., 2016; Westenberg, 2016). This dynamic is reproduced in the identity building scenarios examined. It is also worth highlighting the absence of videos dealing with scenarios of ideological identities, such as religion and politics and even ethnic identity. We could suggest that this is due to either a lack of personal interest in these topics or that they do not sell well on the Internet and may even lead to losing followers. This issue should be contrasted in further studies, although YouTubers are normally advised to focus their videos on humor, sex, inspirational issues or those that contain a story or produce intense emotions (Rodríguez, 2013).

There are normally two identity scenarios that are addressed by YouTubers: gender identity together with sexual identity and vocational identity. They show the process they followed to build their gender and sexual identity; the majority do it from a present context, describing how it occurred, why they decided on particular sexual orientation, what gender they identify with, who supported them, what doubts they had, what are their emotional experiences, etc. It should be mentioned that the videos with the most followers are those that deal with sexual orientation issues, especially in the discovery of homosexuality and bisexuality, as well as the definition or identity of a transsexual gender. From a follower's perspective, judging from their comments, they are still in the process of deciding what they want or what will be their gender identity or sexual orientation. Adolescents are therefore able to ask questions or talk about their own experiences, which generates an emotional link with the YouTuber. As shown in previous studies (Moreno, 2005; Rocha, 2009), gender identity is influenced by social and cultural contexts, and it is, therefore, important to consider the influence of YouTubers in this scenario. This is because YouTubers acquire a major role by talking about issues that adolescents may not dare to talk about with other people and their personal experiences may heavily influence the decisions of followers and even the process of communicating with their environment.

In the case of vocational identity, YouTubers describe the difficulties they encountered in choosing a particular vocation at a time when they were experiencing so many physical and emotional changes. They highlight the influence of their peer groups in their vocational decision and the emotional consequences of making the wrong decision (Bisquerra, 2015), in addition to their experience in their present role as a YouTuber, which they consider to be their "true" vocation. They, therefore, deal with the processes of uncertainty, complexity, and significance in the identity scenario, in addition to the importance of achieving vocational maturity that can allow anyone to make the right choice of education and occupation (Rivas, 2003). In turn, their followers talk about their doubts relating to a particular future educational project or occupation for which there is very much information all at once, and which often does not depend on themselves. Nevertheless, the comments highlight the importance of having a personal goal to be a "writer" or "artist", for example, as the basis of the choice.

In social relations, there are very few YouTuber videos that deal with ideas on family, friends or partners, although they do highlight the importance of family support in building an identity, especially gender identity. There are also comments on past and present friends and opinions on love and infidelity. Bearing in mind that peers and family are an important source of social support (Demaray & al., 2009), we have to ask ourselves why they are missing. One hypothesis would be that in their role as advisers and role models, what prevails is their self-disclosure as a strategy to generate empathy and gain subscribers. The priority is, therefore, to talk about themselves as independent and mature people.

Besides, the results of the study highlight the experiences of YouTubers and their followers in relation to the significance of their physical changes in adolescence, especially the difficulties and conflict they generate: the evolution of the self-concept "adolescent" (from the initial abstractions of who they are up to the creation of a multiple self-concepts), and the importance of self-esteem to be happy.

This work illustrates the diverse roles that YouTuber messages can have in the construction of the identity of their followers, mainly adolescents, their relationships being an important social aspect to be taken into account in the process. The limitations of the study include the selection of videos based on the YouTubers with the highest number of followers with this type of identity content. The popularity of YouTubers can produce a certain consistency in their opinions and relations, as they may simply have a commercial vision of their relationship with their followers. However, the Internet and YouTube are broad and diverse worlds, meaning that there are more than likely other YouTubers with a less concentrated influence, but a greater diversity of opinion and interests, a less commercial view of the relationship and a much more ideological approach.

Finally, further research is required to study the different issues and aspects resulting from this work. Firstly, it is necessary to obtain more data and learn the opinion of YouTubers on their role as advisers, which they appear to assume and to understand why they do not address certain issues such as those related to ideology. It would also be recommendable to increase the sample of YouTubers, using selection criteria that are not based on popularity and extending the analysis to blogs and Instagram. Secondly, it is also necessary to learn the views and interpretations of YouTuber followers on this type of video. To do so, it would be highly recommendable to carry out studies that include in-depth interviews that enable a more comprehensive worldview of both groups.

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Prosumers and emirecs: Analysis of two confronted theories

Prosumidores y emirecs: Análisis de dos teorías enfrentadas

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ABSTRACT

In the 1970s, the publications of Alvin Toffler and Jean Cloutier were essential for the emergence of two concepts, prosumer and emirec, whose meanings have been mistakenly equated by numerous scholars and researchers. At the same time, the mercantilist theories linked to prosumption have made invisible the models of communication designed by Cloutier. In this article, configured as a review of the state of the art made from an exhaustive documentary analysis, we observe that, while the notion of prosumer represents vertical and hierarchical relations between companies and citizens, Cloutier's emirec evokes a horizontal relationship and an isonomy between professional and amateur media creators. The prosumption presents an alienated subject, who is integrated into the logic of the market under free work dynamics and from the extension of time and productive spaces, while the emirec is defined as a potentially empowered subject that establishes relations between equals. The theory of the prosumer reproduces the hegemonic economic model by seeking solutions from the field of marketing so that the media and entertainment industries must face the challenges they have to face in the digital world. On the contrary, the emirec theory connects with disruptive communicative models that introduce new relationships between media and audiences and the establishment of a logic of affinity between communication participants.

RESUMEN

En los años 70, las publicaciones de Alvin Toffler y Jean Cloutier resultan esenciales para el surgimiento de dos conceptos, prosumidor y emirec, cuyos significados han sido equiparados de forma errónea por numerosos académicos e investigadores. De forma paralela, las teorías mercantilistas vinculadas a la prosumición han invisibilizado a los modelos de comunicación entre iguales de Cloutier. En este artículo, configurado como una revisión del estado de la cuestión realizada a partir de un exhaustivo análisis documental, observamos que, mientras que la noción de prosumidor representa unas relaciones verticales y jerárquicas entre las fuerzas del mercado y los ciudadanos, el emirec de Cloutier evoca a una relación horizontal y una isonomía entre comunicadores profesionales y amateurs. La prosumición presenta un sujeto alienado e integrado en la lógica del mercado bajo dinámicas de trabajo gratis y a partir de la extensión del tiempo y los espacios productivos, mientras que el emirec se define como un sujeto potencialmente empoderado que establece relaciones entre iguales. La teoría del prosumidor pretende la reproducción del modelo económico hegemónico buscando soluciones desde el ámbito del marketing a los constantes desafíos que la industria de los medios y el entretenimiento deben afrontar en el mundo digital. Por contra, la teoría del emirec conecta con modelos comunicativos disruptivos que introducen nuevas relaciones entre medios y audiencias y el establecimiento de la lógica de la afinidad entre los participantes de la comunicación.

KEYWORDS | PALABRAS CLAVE

Prosumer, emirec, digital media, empowerment, market, prosumption, marketing, alienation.
Prosumidor, emirec, medios digitales, empoderamiento, mercado, prosumición, marketing, alienación.

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1. Introduction

Two opposing theories about communication were enunciated in the 70s of the 20th century, based on the ideas outlined by Marshall McLuhan and Barrington Nevitt in their book "Take Today: The Executive as a Dropout" (1972), in which they affirmed that with technology the consumer could become a producer at the same time. On the one hand, Jean Cloutier defines his emirec theory that focuses on communication, interaction, and creation in all fields. On the other, Alvin Toffler stated his prosumer theory for the first time, which is distinguishably economic and focused on the market, as we will show later on. A thorough re-reading of these two authors' contributions is necessary to identify the true nature of both terms, mistakenly considered as equivalents or synonyms.

Emirec and prosumer do not evoke the same reality. Prosumption is a process that has economic roots, while the emirec theory focuses exclusively on the field of communication. Different scholars have analyzed the work of prosumers as a key element for the current economic model's functioning. The following authors, among others, consider it to be a key word to characterize new market relationships between consumers and producers. Ritzer and Jurgenson (2010) defend the emergence of "prosumer capitalism" and the need for a "sociology of prosumption". Fuchs (2010) introduced the concept of "labor of the media and Internet prosumer", based on the notion of the work of Smythe's audiences (1977). Huws (2003) affirms the existence of a "consumer work" that is enabled by new information and communication technologies. Bruns (2008) coined the term "produsage" which evokes the figure of the user who produces his goods and/or services. Kücklich (2005) was the first to mention the need to study the so-called "playbour" that proliferates on social networks and within the transmedia culture and media franchises. Hardt and Negri (2000) and Ritzer, Dean and Jurgenson (2012) link this producer as an essential actor for the "social factory", which generates a huge immaterial production (Lazzarato, 1996) in the Web 2.0 context where users consume information and produce content through different platforms (Chia, 2012; Shaw & Benkler, 2012). In this model of informational capitalism, an ethical surplus is generated in content and messages (Arvidsson, 2005) constituting a model of informative consumption on demand (Sunstein, 2001) or pro-am (Leadbeater & Miller, 2004).

Unlike all these notions, which dialogue closely with the economic and mercantile dimension of Toffler's prosumer, the emirec notion implicitly evokes questions related to the field of communication and, from its origin, focuses on dialogic, democratic communicative processes; not those that are hierarchical.

2. The economist view. The prosumer as a market support

The perspectives from which the study of prosumption has been addressed vary from the field of media convergence (Sánchez & Contreras, 2012), the world of marketing (Tapscott, Ticoll, & Lowy, 2001; Friedman, 2005; Tener & Weiss, 2004) and the analysis of citizen participation in the social structure (Fernández-Beaumont, 2010). Of all these approaches, those linked to the field of economics have occupied the space that would correspond to the theories and models that are derived from the emirec theory, so it becomes essential to review both concepts – prosumer and emirec; both apparently similar but substantially different.

The profound study of prosumption is inseparable from the use of categories of analysis embedded in the field of economics. Any approach to the prosumer notion takes us to the book "The Third Wave" (Toffler, 1980), where three key moments in the history of economic relations are differentiated. The first wave arises with the agricultural revolution and is established between the ninth and eighteenth centuries. In this period, most individuals were prosumers; they consumed what they produced. From the eighteenth century, the so-called second wave begins, when the industrial revolution modifies the means of production and establishes a separation between the functions of production and consumption, which has the birth of the market understood as a set of networks of commercial exchange as its main consequence. This second wave differentiates those who produce goods from those who acquire them. In this period, the individual is a consumer of the goods that others produce. The third wave –starting from the 40s of the twentieth century– entails the reappearance of the prosumer on a high technological basis that allows for the production of their goods for the market's sustenance. This process is evident in the digital world.

After the initial contributions of Toffler, the prosumer concept was refined by Don Tapscott in his work "The digital economy" (1995). Tapscott updates the vision of prosumption at a time when technological advances enabled the convergence between producers and consumers more than during any previous time. The term's economic dimension was renewed and strengthened by this author, who defined the fundamental characteristics of the prosumer 2.0: freedom, customization, scrutiny, and comparison before the purchase, search for integrity and coherence in the message of the brands, collaboration in the realization or the design of products and services, search for entertainment, demand for instant supply and constant product innovation (Tapscott, 2009). Prosumption would be a key element to understand the new marketing rules of the twenty-first century. This is based on the transition of products to experiences, from the sale's physical space to the ubiquity provided by digital devices and traditional promotion and advertising processes to the dynamics of communication and dialogue between brands and users, setting forth an evolution that starts from the author as the sole producer to the user as a prosumer (Hernández, 2017). Two works by Tapscott contribute significantly to increasing the expansion of the term prosumer: "Wikinomics" (2001) and "Grown up digital. How the next generation is changing your world" (2009).

In connection with Tapscott's ideas, it is evident that the production of user data constitutes a fundamental element of the market in an informational economy like the present one. In digital platforms and social networks, users constantly create and reproduce content and profiles that contain personal data, social relationships, affection, communications, and communities. In this model, all online activities are stored, evaluated and commercialized. Users not only produce content, but also a set of data that is sold to advertising companies that, in this way, can present personalized ads based on each's interests. Users are, therefore, productive consumers that produce goods and benefits that are intensively exploited by capital (Fuchs, 2015: 108).

> Emirec and prosumer do not evoke the same reality. Prosumption is a process that has economic roots, while the emirec theory focuses exclusively on the field of communication. Different scholars have analyzed the work of prosumers as a key element for the current economic model's functioning.

The digital prosumer, therefore, is not configured as an empowered individual but alienated by converting what would otherwise be necessary paid labor for the market into unpaid work. To do this, one of the techniques used is crowdsourcing, an essential strategy to achieve users' involvement and emotional attachment (Aitamurto, 2013; Marchionni, 2013). Far from being configured as a democratizing engine of commerce (Howe, 2008:14), crowdsourcing can be defined as a mechanism that informational capitalism uses to create value and intensify exploitation (Fuchs, 2015: 156).

At the same time, digital prosumption is governed by processes of coercion. Large digital companies monopolize the provision of certain services -such as the creation of vast networks of social connectivity- and, therefore, are able to exert an invisible coercive force on users, who are reluctant to abandon such platforms in order to maintain their social relations and not be led to an evident impoverishment in communicative and social terms.

3. Application of the term prosumer in the field of communication

The arrival of Web 2.0 (O'Reilly, 2005) opens up new opportunities for communication and participation of audiences in public discourse, even for the development of cyber-activism activities (Tascón & Quintana, 2012); so that the former passive receiver has the possibility of becoming a message sender. Rublescki (2011), and Aguado and Martínez (2012) assert that we are in a liquid media ecosystem in which the roles of issuers and receivers are blurred. In this context, studies are beginning to proliferate on the uses that young people make of social media (Turkle, 2012; McCrindle & Wolfinger, 2011). The new configuration of the concept of responsible citizenship in the consumption of media (Dahlgren, 1995; 2002; 2009; 2010; 2011), the new possibilities of media participation (Couldry, Livingstone, & Markham, 2006; Lunt & Livingstone, 2012), and the use of virtual environments and social networks as platforms for citizen empowerment (Scolari, 2013; Jenkins, & al., 2009; Kahne, Lee, & Timpany, 2011; Jenkins, Ito, & Boyd, 2016; Jenkins, Ford, & Green, 2015). However, it was Tapscott in 2011 who explicitly incorporated prosumption in the analysis of communication when he described the Huffington Post model, based on a shared work between the producer and the consumer (Tapscott, 2011), a global conversation of active news 'prodesigners' (Hernández-Serrano, Renés-Arellano, Graham, & Greenhill, 2017).

On the other hand, the notion of prosumer jumped into the cultural field thanks to the contributions, among others, of Henry Jenkins (2003), who applies this concept to the field of transmedia narratives. Jenkins defines the transmedialization of stories as those processes that trigger narrations using multiple media and platforms and in which a part of the prosumers, users or fans do not limit themselves to consuming such cultural products without going further, but embark on the task of extending its narrative world with new textual pieces (Scolari, 2013). The proliferation of new devices and digital media products produces a scattering of the public, which is no longer behaving under homogeneous consumption principles.

The arrival of the Internet and the invention of new entertainment screens (especially smartphones and tablets) facilitate the disintegration of monolithic audiences of the past that happen to behave in a more heterogeneous way and distribute their media habits on different platforms. In this context, transmedia narratives are presented as a possible solution to address the atomization of audiences. The stories' dispersion in different media that function as differentiated access points to the transmedia universes makes it easier for cultural franchises to locate their products where the consumer is located.

> The economic theories of prosumption have managed to make the communicative notions based on the emirec model that provides a liberalizing vision of the individual invisible. The prosumer notion has an economic origin and should not be used conceptually as a synonym and equivalent to the term emirec. Both concepts present radically opposed definition frameworks. The framework linked to the prosumer notion refers us to a creative subject of goods and services that are commercialized by large companies in the process of false participation that reconfigures and renews the forms of alienation and exploitation.

Despite the numerous references that we can academically find about the prosumer's power as a significant participant in the stories' narrative and the construction of the messages in digital media, the truth is that prosumption carries out communication processes clearly vertical and that it hardly modifies the unidirectionality and hierarchical structure manifested in the mass media. This was demonstrated by Berrocal, Campos-Domínguez and Redondo (2014) in a study on prosumption in political communication on YouTube collected in the journal "Comunicar" (43rd issue), in which they affirm that the prosumer of this type of content is characterized by exerting a very reduced prosumption in the creation of messages and is mainly a consumer. Similarly, much of the limited content generated by these prosumers only serves to reinforce the major communication actors' message or to follow the majority's tendencies, exerting a low level of empowerment and critical capacity. The majority of the opinions that consumers introduce in these videos is linked to what Sunstein (2010) calls "conformity cascades", in which these comments are very brief messages that reaffirm the message of the majority (Berrocal, Campos-Dominguez, & Redondo, 2014:70). Similar results were obtained by Torrego and Gutiérrez (2016) in studies on the participation of young people on the social network Twitter.

As we have observed, the prosumption defined by Toffler as a characteristic of our time is configured as an idea of clear economic vision that in no way serves to define participative communication models since it contains an evident authoritarian burden from which, under the guise of freedom and empowerment, the cultural and media market finds a solution for its renewal and adaptation to the new technological framework. In this sense, unlike opinions such as those of Jackson (2013) that defend the breaking of the monopoly of information from conventional media after the arrival of Web 2.0 and new prosumption, authors such as Buckingham & Rodríguez (2013) affirm that spaces that define new technologies are far from being configured under the principles of freedom and democracy.

4. The view from the field of communication. Emirec as an empowered subject

In the previous sections, we have analyzed how the new digital economy that underlies the big social platforms' functioning subjects the prosumer to new mercantilist laws that confine them to the realization of a free job that benefits large companies. Parallel to this logic, the new communication possibilities offered by the digital media as spaces of communication empowerment that dialogue closely with the notion of emirec defined in the seventies by Jean Cloutier are no less evident.

Cloutier (1973) proposes a communicative model in which all the participants have the possibility of being broadcasters (Aparici & García-Marín, 2017). He calls his theory emirec (émetteur/récepteur), in which the interlocutors maintain relations between equals and where all the subjects of communication are, at the same time, transmitters and receivers. While Cloutier (1973; 2001) in Canada thought about this type of horizontal communicative relations, in France Porcher (1976), Vallet (1977) and later his disciple Francisco Gutiérrez (1976) conceived the media as a parallel school to the educational system; its approach being autonomous and having the need for a total language, a clear antecedent to the current concept of transmedia narratives. There is a whole stream of authors who have criticized the role that has been assigned to the media users and audience, granting the subjects a more significant role in the communication process that exceeds that of the public or fans. In this line of thought we can place Martínez-Pandiani (2009), Vacas (2010), Piscitelli, Adaine y Binder (2010), Repoll (2010) and Jacks (2011). Kaplún (1998) and Martín-Barbero (2004) criticize the communication and education models and practices, adopting Cloutier's emirec proposal. These authors defend the need for communication to be a basic pillar of education, focusing, more precisely, on dialogic communication (Flecha, 2008) and distinguishing between readers, viewers and Internet users (García-Canclini 2007). From the specific field of education, authors such as Silva (2005), Ferrés (2010), García-Matilla (2010), Aparici (2010) and Orozco, Navarro and García-Matilla (2012) advocate a horizontal communicative relationship in the classroom as a practice of citizenship and democracy that promotes true co-authorship practices and a collective construction of knowledge. In digital contexts, the works of Rheingold (2002), Scolari (2004; 2009), Santaella (2007) and Shirky (2011) defend the ideas of empowerment: participation, interactivity, collaboration and co-authorship; in short, the establishment and development of new connectivities in the field of communication. In the same vein, Dezuanni (2009), Burn (2009) and Jenkins (2009; 2011) bring us closer to an interconnected society reaffirming the need to design other communicative models to overcome the 20th century's hierarchical practices. In the media model originated in our days, we can appreciate the fundamentals of communication between equals that support these theories. We analyze these essential principles below.

• **Professional/amateur convergence.** The digital social media present a model that converges both professional communicators and unpaid users in the same space. These platforms break the professional-amateur divide that prevailed in the old media's model. In this sense, according to Burgess & Green (2009: 90), social platforms propose completely disruptive spaces in communicative terms.

• **The isonomy principle**. Digital social media outperforms the hierarchical broadcast model and propose an isonomy where the productions of traditional media and those made by citizens are presented in the same way in a space in which everyone –the media and those who were only receivers before– are communicators (Gabelas & Aparici, 2017). Stiegler (2009) states that digital platforms break the model based on the large media corporations' hegemony that dominated the twentieth century, to privilege the personal choice of each member of the audience, enabled to access a greater volume of media choices possible and to empower themselves as a content producers. Not only are social media spaces for convergence (as we mentioned in the previous point), they are also environments for divergence that operate under the logic of the niche, the individualization of consumption and the fragmentation of audiences (Grusin, 2009).

• **Freedom and negotiation.** The "collaborative networks" (Cusot & Klein, 2015) and social media are configured as open platforms for the participation of any user trained to incorporate all kind of content, formats, ideologies and styles. In these services, there are no defined quality standards, but emirecs value the meaning of the content for their lives, hobbies and emotions with greater relevance. The creative freedom offered by these media opens up new possibilities for expressive experimentation and the creation of new formats. This communicative model feeds the establishment of constant negotiation processes where the ways of understanding the media, their identity, quality and aesthetics are widely debated horizontally within the communities of creators and users.

• **Affinity media and horizontality**. Lange (2009: 70) conceives the affinity media as those that do not distribute their contents for mass audiences, but for small niches of users that wish to take part in the message and remain connected with the producers in clear relations of horizontality. The closeness and permanent connection between YouTubers, Instagramers, podcasters and other digital media producers and their followers (and potential communicators participating in the programs that follow) is key to their messages' success. These productions present a more personal and reflective nature; usually dealing with the day-to-day aspects of the creators and are likely to generate a greater level of response. The logic of affinity feeds an interaction that offers the user the feeling of being connected not to a media product, but to a person with whom he shares common beliefs and interests (Lange, 2009: 83).

• **Challenge to the broadcast model.** The participative, horizontal and dialogical culture typical of these media clashes directly with the strategies used by mass media stars when they want to enter into these platforms. This can be explained with the following example: The American television personality Oprah Winfrey launched her channel on YouTube in November 2007 through a movement that was criticized by the users of the service; since she ignored the cultural norms that had been developed within the community when eliminating the ability to embed and comment on the videos hosted on her channel. YouTube was treated [by Oprah] not as a participatory space, but as an extension platform for her brand (Burgess & Green, 2009: 103). The communicative model associated with the appearance of Oprah on YouTube reproduced the authoritarian unidirectional broadcast logic from which the television star came from, ignoring the basic principles on which the community is governed through this medium. Oprah treated YouTube users as prosumers who had to produce for her brand, not as emirecs with whom to dialogue as equals.

• **Human-machine hybridization.** The Web does not have the possibility of identifying the semantic content of media products built-in image and sound formats, that is why the metadata introduced by users are key to the functioning of the algorithms that operate through the creation of lists, rankings and the recommendations on social platforms. For this reason, these services facilitate acts of deliberate interaction (uploading files, viewing, marking with "likes" or favorites, labeling, commenting, etc.) that provide the necessary information for the system's organization. Such contributions are fundamental for the platform's operations, since they are essential to achieve the visibility of the files and affect the responses of the searches that the user performs. This hybrid model (Kessler & Schäfer, 2009) connects humans and machines for the management of information within the large database that is built around online services. These media and platforms are an example of what Kessler & Schäfer call Theory Actor-Network, which defends that human and mechanical agents should be considered equally important in the constitution of social interaction. In such platforms, the meta-information provided by creators and users is crucial. The subjects provide semantic input that the machine processes algorithmically producing different organization types of file and metadata. This mixture of technological devices and user action constructs new media practices that challenge our traditional conception of media use and that place the emirec in an interaction not only with other subjects, but also with algorithmic devices that influence their media experience.

• **Collective Intelligence and library metaphor.** These social media can be seen as large libraries or repositories full of cultural resources where a large number of emirecs create content on the topics they dominate, constituting sources of knowledge that can be used in many different ways; from the reappropriation of contents and their use for educational purposes to their own cultural enrichment.

As we have observed, networks and digital social media are potential spaces of action for emirec communicators. Their operating model fundamentally breaks the dynamics of the mass media by imposing a new configuration of the connections between traditional media and independent producers and a greater dialogical relationship between media creators and users.

However, the emirec concept must be revised starting with the arrival of Web 2.0. Cloutier enunciated his theory in an era of analog technologies that defined a media ecosystem that changed radically since the beginning of the 21st century. Digital technologies have opened the door to the arrival of new media and languages and renewed relationships between communication actors. On the one hand, the new digital media context activates the presence of new platforms that incorporate renewed communicative logic. These platforms, far from being static, change their languages and protocols over time; adapting to the use that users make of them. Social media platforms, far from being obsolete products, are dynamic objects that are transformed in response to user needs (Van-Dijck, 2016). This process also operates in reverse: new spaces and digital communication services affect the way in which subjects produce and distribute their messages and are affected by them (Finn, 2017). Therefore, a clear co-evolution process is established in which technologies and users influence each other, adding new nuances to the emirec notion; whose updating is essential.

5. Conclusion

The economic theories of prosumption have managed to make the communicative notions based on the emirec model that provides a liberalizing vision of the individual invisible. The prosumer notion has an economic origin and should not be used conceptually as a synonym and equivalent to the term emirec. Both concepts present radically opposed definition frameworks. The framework linked to the prosumer notion refers us to a creative subject of goods and services that are commercialized by large companies in the process of false participation that reconfigures and renews the forms of alienation and exploitation. Prosumption is essential for the extension of spaces and productive work times that were previously dedicated to leisure. In the digital economy, it is essential that this leisure time becomes a time of goods production that, unlike the processes that occur in offline prosumption, prosumers do not create for themselves, but for large digital companies.

Faced with these power relations –vertical and hierarchical– which prosumption offers as an economic category, we find the communicative theory of the emirec, which places its basics on the consideration of individuals as senders and receivers at the same time, acting under the principles of horizontality and with a total absence of hierarchy. The prosumer is an individual who works (for free) for the market and reproduces the existing model, while the emirec is an empowered subject that has the potential capacity to introduce critical discourses that question the system's functioning. The prosumer produces and consumes to reproduce the economic order, while the emirec communicates from a position of freedom. Therefore, the separation and differentiation of both terms are essential.

It is necessary to start thinking about theories that overcome the division between senders and receivers. In the digital context of communication, the relationship occurs between communicators (amateurs, popular, professionals, all have the voices of broadcasters) that move or are moved by different platforms or social networks. For this reason, the emirec concept must be studied from innovative perspectives according to new communicative logic.

At the same time, it is necessary to start thinking about theories that overcome the division between senders and receivers. In the digital context of communication, the relationship occurs between communicators (amateurs, popular, professionals, all have the voices of broadcasters) that move or are moved by different platforms or social networks. For this reason, the emirec concept must be studied from innovative perspectives according to new communicative logic. Cloutier's post-functionalist theories were enunciated in an era that presented an exclusively analog media ecosystem that has nothing to do with the current context. The technological leap developed over the last decades and, above all, the generation of new practices and communication dynamics oblige us to review the emirec theory. It deserves to be analyzed from a dynamic point of view that addresses the profound changes that have occurred during the first decades of the 21st century in communicative and technological fields.

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A science mapping analysis of 'Communication' WoS subject category (1980-2013)

Mapeo científico de la Categoría «Comunicación» en WoS (1980-2013)

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ABSTRACT

Communication research field has an extraordinary growth pattern, indeed bigger than other research fields. In order to extract knowledge from such amount, intelligent techniques are need. In such a way, using bibliometric techniques, the evolution of the conceptual, social and intellectual aspects of this research field could be analysed, and hence, understood. Although the communication research field has been widely analysed using bibliometric techniques and science mapping tools, a conceptual analysis of the whole communication research field is still needed. Therefore, this article introduces the first science mapping analysis in the communication research field based on the Web of Science Subject Category "Communication", showing its conceptual structure and scientific evolution. SciMAT, a bibliometric science mapping software tool based on co-word analysis and h-index, is applied using a sample of 33.627 research documents from 1980 to 2013 published in 74 main communication journals indexed in the Journal Citation Reports of the Web of Science. The results show that research conducted in the communication research is concentrated on the following sixteen disconnected thematic areas: "children", "psychological aspects", "news", "audience", "surveys", "advertising", "health", "relationship", "gender", "discourse", "telephone communication", "public relation", "telecommunications", "public opinion", "activism" and "Internet". These areas have progressively disconnected among them, which drives to a Communication field relatively fragmented.

RESUMEN

El campo científico de la comunicación ha experimentado un enorme crecimiento a lo largo de los años, superando incluso a algunas áreas científicas consagradas. Mediante el uso de técnicas bibliométricas, podemos analizar la evolución conceptual, social e intelectual de esta área, así como comprenderla. En particular, el área de «Comunicación» ha sido ampliamente estudiada desde un punto de vista bibliométrico, pero no se ha realizado un análisis conceptual global del área englobado en un marco longitudinal. En este sentido, este artículo muestra el primer análisis de mapas científicos del área de investigación de la comunicación basándose en la Categoría de la Web of Science «Communication», centrándose en la estructura conceptual y cómo esta ha evolucionado. El estudio se ha realizado mediante la herramienta de análisis de mapas científicos SciMAT, basada en los mapas de co-palabras y en el índice-h. Un conjunto de 33.627 artículos científicos, publicados entre 1980 y 2013 en las 74 principales revistas del Journal Citation Reports de la Web of Science, han sido estudiados. Analizando los resultados, podemos destacar que la investigación llevada a cabo en el área de la comunicación se ha centrado en dieciséis áreas temáticas: «infancia», «aspectos psicológicos», «noticias», «audiencias», «sondeos», «publicidad», «salud», «relaciones», «género», «discurso», «comunicación telefónica», «relaciones públicas», «telecomunicaciones», «opinión pública», «activismo» e «Internet». Estas áreas se han desconectado entre ellas progresivamente, lo que conduce a un campo relativamente fragmentado.

KEYWORDS | PALABRAS CLAVE

Web of Science, bibliometric, science mapping, citations, h-index, bibliometric indicators, co-word analysis.
Web of Science, bibliometría, mapas científicos, citas, índice h, indicadores bibliométricos, análisis de co-palabras.

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1. Introduction

As pointed by Rogers (1994), communication is a professional field and also a scientific discipline. It has an extraordinary growth rate (Park & Leydesdorff, 2009), even more rapid than in biotech or computer sciences (Koivisto & Thomas, 2011). Moreover, Web of Science contains a category entitled "Communications" where different related communication journals are grouped. Since there is a huge amount of communication studies, the analysis of the conceptual evolution of the field must be done using intelligent tools, such as bibliometric and science mapping analysis.

Bibliometrics is a relevant resource to evaluate and analyse the scholarly production in the different areas of Science and Knowledge (Martínez, Cobo, Herrera, & Herrera-Viedma, 2015). They allow assessing the bibliographic production developed at different levels and by different agents, from nations to individuals, including institutions or journals (Martínez, Herrera, López-Gijón, & Herrera-Viedma, 2014).

Science mapping and performance analysis stand out as the main bibliometric methods used in this sense (Noyons, Moed, & Luwel, 1999). Performance analysis deals with the scientific impact and citation reached by different actors such as universities or scientists. Science mapping draws a representation of the structure of scientific research as well as its evolution at the intellectual, theoretical or social spheres.

These methods have been applied to analyse the structure of Communication through different levels such as authorship (Barnett & Danawoski, 1992), associations (Barnett & Danawoski, 1992; Chung, Lee, Barnett, & Kim, 2009), institutions (Koivisto & Thomas, 2011), participation on Doctoral commitees (White, 1999), the influence of gender on received quotations (Knobloch-Westerwick & Glynn, 2013) and the relationship of communication with other areas (Barnett, Huh, Kim, & Park, 2011; So, 1988). When approaching the scientific production of the field, previous studies have selected papers from specific journals (Hakanen & Wolfram, 1995; Rogers, 1999; Leydesdorff & Probst, 2009; Poor, 2009; Schönbach & Lauf, 2006; Smith, 2000), from specific geographical areas (De-Filippo, 2013; Fernández-Quijada & Masip, 2013; So, 2010), published by certain authors (Lin & Kaid, 2000; Lauf, 2005), dealing with specific topics (Chung, Barnett, Kim, & Lackaff, D, 2013; Míguez-González, Baamonde-Silva, & Corbacho-Valencia, 2014; Repiso, Torres & Delgado, 2011; Tai, 2009) or quoted by flagship journals (Park & Leydesdorff, 2009).

This paper introduces the first science mapping conceptual analysis of the entire communication category, showing the field's structure, evolution and new trends. To do that, the communication research production (1980-2013) indexed at the Journal Citation Reports (JCR), and Web of Science (WoS) is examined using the SciMAT software tool (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2012).

Communication research field Research from the communication field has been traditionally divided into two disciplines (Barnett & al., 2011; Rogers, 1999): on the one hand mass communication and the other hand interpersonal communication. This issue is evidenced by the degree to which both disciplines cite each other (Rogers, 1999). It has also been described as a lack of communication among the communication researchers (Paisley, 1984; So, 1988) who in fact, use separate literature.

Nowadays, there is a great debate about the structure of communication research field and its fragmentation (Corner, 2013). Some authors argue that communication research field is an incomplete aggregation of atomized research domains (Park & Leydesdorff, 2009), and therefore, the field cannot be divided into mass and interpersonal communication (Barnett & al., 2011). Moreover, communication is influenced by other fields such as psychology, political science, and sociology (Barnett & al., 2011; Leydesdorff & Probst, 2009). For example, (Barnett & Danawoski, 1992) there are claims for a more complex structure, finding three different dimensions within the field: communication/interpersonal, humanistic/scientific, and theoretical/applied studies. This more complex structure is also supported by Barnett & al. (Barnett & al., 2011). In fact, communication could be split into various academic entities (Park & Leydesdorff, 2009), such as political communication (Lin & Kaid, 2000), technical communication (Smith, 2000), agenda-setting (Tai, 2009), speech communication, advertising, etc. Communication research field cannot be addressed as a stable set, but it is on the way towards the establishment of a specialty of its own (Leydesdorff & Probst, 2009).

This work provides maps to be useful for research policy actions as well as to science sociologists. It may also be useful for communication researchers who may need a science tree of their discipline to research career orientation purposes.

The current paper aims to draw the evolution of the Communication research field through the following research questions:

- RQ1. Which are the main research themes in Communication?
- RQ2. How central and developed are those themes?
- RQ3. Which are the most important topics according to production and impact?
- RQ4. How have those themes evolved since 1980?

2. Material and methods

SciMAT (Cobo & al., 2012) synthesizes most of the assets of the existing science mapping software tools (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011b). It was developed following the system designed by Cobo, López-Herrera, Herrera-Viedma and Herrera (2011a), based on the h-index (Hirsch, 2005) and on co-word analysis (Callon, Courtial, Turner, & Bauin, 1983). Performance analysis and science mapping are thus simultaneously used to scrutinize a research field by detecting and visualizing its conceptual subdomains as well as its thematic evolution. A longitudinal co-word science mapping analysis carried out with SciMAT is based on four stages (Cobo & al., 2011a):

> This paper introduces the first science mapping conceptual analysis of the entire communication category, showing the field's structure, evolution and new trends. To do that, the communication research production (1980-2013) indexed at the Journal Citation Reports (JCR), and Web of Science (WoS) is examined using the SciMAT software tool.

• Detection of the research themes. The keywords extracted from the documents of each period are used to build a whole network based on co-occurrence. That is, in the network, the nodes will represent the keywords, and there will be an edge between two nodes if both keywords co-appear in a set of documents. Then, a clustering algorithm (Coulter, Monarch, & Konda, 1998) is applied to a normalized co-word network in each period to identify the existing research themes. A cluster or theme will represent a set of keywords strongly related to each other.

• Visualizing research themes and thematic network. A graphic representation of the identified topics is drawn through two different instruments: strategic diagram and thematic network. Following Callon, Courtial, and Laville (1991), two dimensions are used to characterize each topic: centrality and density. The former measures the external interaction among each network and can be understood as the relevance value of the topic. The latter measures the internal cohesion of the network, and it should be interpreted as a measure of the theme's development. Through centrality and density, a research field can be represented in a two-axis strategic diagram which draws four different categories:

a) Upper-right quadrant. Topics placed in this category are identified as "motor themes", as they are well developed and essential for building the research field.

b) Upper-left quadrant hosts topics characterized by strong internal ties but weak external links, with low relevance for the field. They stand as specialized themes on the area periphery.

c) Lower-left quadrant includes topics lacking development and relevance. They represent either emerging or disappearing themes.

d) Lower-right quadrant shows relevant themes but lacking development. They can be understood as transversal, basic and general topics.

• Discovery of thematic areas. The main themes of the field and their evolution are drawn through their diachronic changes. These changes are identified by overlaps in the clusters from one period to the following. That is, there is evolution if a theme from the period T1 share keywords with a theme of the period T2. As more keywords two clusters of consecutive periods have in common, stronger will be the evolution.

• Performance analysis. Each theme and thematic area are comprised of a set of keywords that appear in a set of documents. That is, a set of documents could be associated with each theme and thematic area. In that sense, the production and scientific impact of each topic and each thematic area are measured using bibliometric indicators

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such as the number of published documents, citations, or different types of h-index (Hirsch, 2005).

The Journal Citation Reports (JCR) provided by Clarivate Analytics is used to obtain the most important communication journals because it presents the best retrospective coverage and it provides quality data to develop our study. The JCR (2013) listed 74 journals under the Communication subject category. Data were retrieved from Web of Science database

The sample is further restricted to the period 1980-2013 and it only includes articles and reviews. It includes 33.627 documents and their citations up to August 2014.

Author's keywords as well as they their Keywords Plus were used as units of analysis. Additionally, a deduplication operation was carried out to refine data. As some documents lacked enough keywords, descriptive keywords were manually added. Those additional keywords were elaborated matching title words with other key-

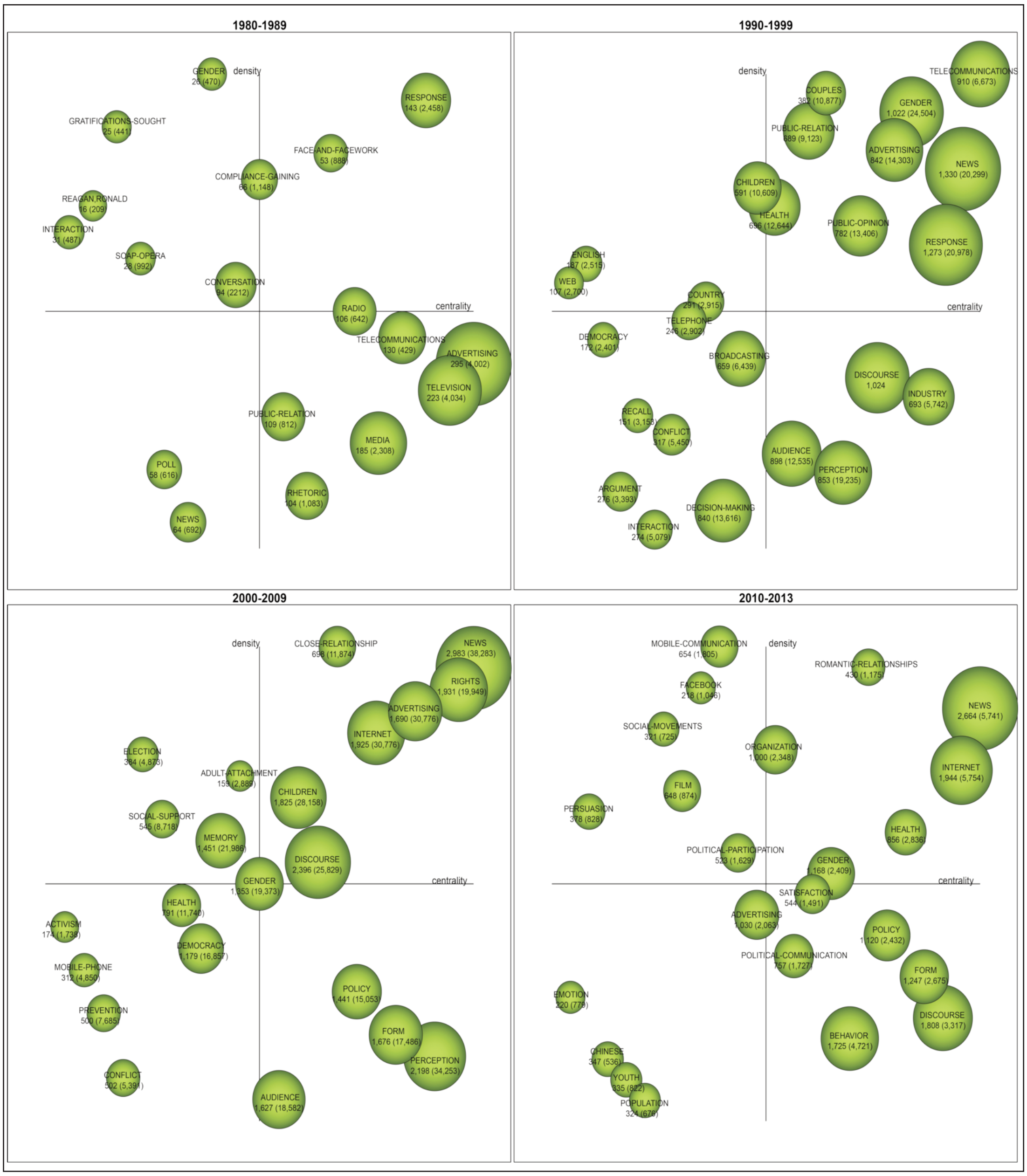

Figure 1. Strategic diagrams for the periods 1980-1989, 1990-1999, 2000-2009 and 2010-2013.

words already present in the Web of Science database. Last, some keywords were excluded because of their low informational value: that was the case with stop words or terms which were deemed too generic, for instance, Communication. Finally, 29.951 keywords were used.

Next, the comprehended time lapse was divided into four periods: 1980-1989, 1990-1999, 2000-2009 and 2010-2013. WoS included 3,731, 6,583, 13,203 and 10,107 documents respectively for each one of these periods.

3. Results

3.1. Communication research themes

A diagram is presented for each chronologic period to analyse the most relevant themes in the communication research field. In each diagram, the sphere size is related to the sum of documents linked to each research topic. Also, the sum of citations received by each topic is offered in brackets.

• **First period (1980-1989)**. During this period, the communication research field pivoted on eighteen research themes (Figure 1).

The performance measures stated in Table 1 remark two topics: "Advertising" and "Television". Both themes got the largest number of documents and achieved more than four-thousand citations.

"Advertising" is the most central theme, standing as a basic and transversal topic, achieving a high citation rate and impact, related to brands, sales, and products.

The theme "Television" is categorized as basic and transversal, and it is very central in that period. It achieves the highest impact rate. This theme comprises research conducted on different aspects of television, such as the coverage of different disasters, social uses of television, and communication patterns among others.

• **Second period (1990-1999).** According to the strategic diagram shown in Figure 1, the research field was mainly composed of motor themes in those years. Also, there is a great number of emerging themes which will be the basis of future themes in the next periods.

The theme "News" evolves from an emerging topic in the first period to one of the most important motor themes during this decade. According to Table 1, it ranks as the most productive theme in third place, according to its citations.

The theme "Response" is consolidated as a motor theme, is one of the most attractive to communication researchers. It is still covering and delving into similar topics.

The motor theme "Gender" obtained the highest impact rate in this period. It is related to gender/sex difference, intimacy, and sex as well as behaviour.

"Advertising" is also consolidated as the motor theme, reaching great impact with a limited number of documents. Among other topics, the use of advertisement on the Internet is studied.

• **Third period (2000-2009).** During this period, the communication research field pivoted on twenty-two research themes (Figure 1).

The motor-theme "News" is the most important according to its performance indicators (Table 1). It studies topics related to news and mass media, the media effects models, and news coverage.

"Advertising" is consolidated as motor-theme in that period. It is devoted to different aspects, such as its use on Internet, corporations sponsoring, effectiveness or brand placement in video games.

"Internet" appears as an important motor theme with a high citation score and also with the best h-index. It covers different aspects of this news media. For instance, the differences among Web and mail survey response rates, patterns on Internet, and on-line Social Networks among others.

"Close-Relationship" is focused on aspects related to romantic relationships such as satisfaction, positive illusions, dating, dynamics of emotional reactions, and attachment.

"Children" become an important motor theme in this period, obtaining a huge impact rate. It is mainly focused on the analysis of the behaviour of children and youth, especially on the Internet. Also, it covers aspects related to the effects of violent video games and violent media content.

"Discourse" is strengthened as the motor theme in this period by improving its impact rate. Mainly the research conducted during this period was devoted to language, identity, ideology, narration as well as the discourse analysis.

The theme "Gender" obtained a moderate impact rate. It is centred on opinion gender gaps, sex differences in video games playing, differences in attitudes toward homosexuality or differences in empathic accuracy.

• **Fourth period (2010-2013)**. During this period, the communication research field pivoted on twenty-three themes (Figure 1).

Taking into account their performance measures (Table 1), the motor themes "News" and "Internet" stand out. The former covers a great variety of topics, such as the diffusion of news in new on-line tools like Twitter, framing or the media coverage of different news. The latter is focused on different aspects of the on-line communication.

Moreover, "Gender" is consolidated as the motor theme, and refers to topics such as the sexually explicit internet material, gender differences in the Internet, sex difference in on-line dating, gender roles and work-life, sex-difference in video games, or the necessity of seeking health information.

The theme "Advertising", although it is laid out in the fourth quadrant, it is very close to the centre of the strategic diagram. Also, due to its evolution and impact rate in this period, it could be considered as an important topic. It covers aspects related to in-game brand exposure, how users assess credibility to websites of brands, commercial media environment or the understanding of advertisements by children.

3.2. Thematic evolution of the communication research field

Using SciMAT, the research output in the field was observed to concentrate around 16 areas: "Children", "Psychological aspects", "News", "Audience", "Surveys", "Advertising", "Health", "Relationship", "Gender", "Discourse", "Telephone communication", "Public relation", "Telecommunications", "Public opinion", "Activism" and "Internet" (Figure 2). In this Figure, thematic links are represented by a solid line. In other sense, a dotted line connects topics which share common keywords other than their respective names (for a better understanding, the dotted lines which connect themes of different thematic areas were deleted). Meanwhile, the size of the sphere represents the number of documents belonging to each theme. Additionally, the different shadows gather the topics labeled under the same thematic area.

Structural analysis of the evolution of the communication scientific field. As seen in Figure 2, the analysed research output is characterised by a solid cohesion. Most of

Table 1. Performance of the themes in the for the periods 1980-1989, 1990-1999, 2000-2009 and 2010-2013

Period 1980-1989				Period 1990-1999			
Name	**Documents**	**Citations**	**h-index**	**Name**	**Documents**	**Citations**	**h-index**
Advertising	295	4,002	33	Telecommunications	910	6,673	34
Television	223	4,034	35	Audience	898	12,535	49
Media	185	2,308	25	Perception	853	19,235	63
Response	143	2,458	28	Advertising	842	14,303	54
Telecommunications	130	429	10	Decision-Making	840	13,616	50
Public-Relation	109	812	12	Public-Opinion	782	13,406	55
Radio	106	642	13	Health	696	12,644	49
Rhetoric	104	1,083	16	Industry	693	5,742	35
Conversation	94	2,212	23	Public-Relation	689	9,123	43
Compliance-Gaining	66	1,148	19	Broadcasting	659	6,439	35
News	64	692	16	Children	591	10,609	46
Poll	58	616	17	Couples	382	10,877	47
Face-And-Facework	53	888	15	Conflict	317	5,450	36
Interaction	31	487	10	Country	291	2,915	25
Soap-Opera	28	992	18	Argument	276	3,393	32
Gender	26	470	12	Interaction	274	5,079	36
Gratifications-Sought	25	441	12	Telephone	246	2,902	29
Reagan, Ronald	16	209	9	English	187	2,515	27
				Democracy	172	2,401	27
				Recall	151	3,153	30
				Web	107	2,700	28
				News	1,330	20,299	62
				Response	1,273	20,978	64
				Discourse	1,024	13,397	48
				Gender	1,022	24,504	66
Period 2000-2009				**Period 2010-2013**			
Name	**Documents**	**Citations**	**h-index**	**Name**	**Documents**	**Citations**	**h-index**
Health	791	11,740	43	Health	856	2,836	19
Close-Relationship	698	11,874	43	Political-Communication	757	1,727	12
Social-Support	545	8,718	42	Mobile-Communication	654	1,805	16
Conflict	502	5,391	34	Film	648	874	10
Prevention	500	7,685	41	Satisfaction	544	1,491	14
Election	384	4,873	33	Political-Participation	523	1,629	17
Mobile-Phone	312	4,850	34	Romantic-Relationships	430	1,175	13
Activism	174	1,738	21	Persuasion	378	828	12
Adult-Attachment	159	2,889	29	Chinese	347	536	9
News	2,983	38,283	71	Youth	335	822	12
Discourse	2,396	25,829	55	Population	324	676	10
Perception	2,198	34,253	67	Social-Movements	321	725	11
Rights	1,931	19,949	51	Emotion	220	779	13
Internet	1,925	30,776	73	Facebook	218	1,046	17
Children	1,825	28,158	62	News	2,664	5,741	20
Advertising	1,690	23,059	55	Internet	1,944	5,754	22
Form	1,676	17,486	50	Discourse	1,808	3,317	17
Audience	1,627	18,582	52	Behavior	1,725	4,721	19
Memory	1,451	21,986	55	Form	1,247	2,675	18
Policy	1,441	15,053	49	Gender	1,168	2,409	17
Gender	1,353	19,373	51	Policy	1,120	2,432	18
Democracy	1,179	16,857	54	Advertising	1,030	2,063	15
				Organization	1,000	2,348	16

the identified topics are gathered under a thematic area. They derive from a topic appeared in the previous period. Also, they show a continuous evolution with almost no jumps or gaps. Regarding the starting period, ten thematic areas started in the first period. Thus, they could be considered as classic. Moreover, in the second period, three new thematic areas emerged: "Health", "Relationship" and "Internet". In fact, the thematic area "Internet" plays an important role in the development of the field. Regarding the theme composition, the thematic areas "News", "Relationship", "Gender" and "Internet" are mainly composed of motor themes in all the periods. Also, the thematic areas "News", "Gender" and "Internet" show a significant growth according to the rise in the number of documents (that is, volume of spheres in Figure 2).

Table 2. Performance of the thematic areas

Name	Documents	Citations	h-Index
Children	4634	48171	73
Psychological-aspects	4881	74186	83
News	7243	67612	84
Audience	4187	39420	71
Surveys	2002	33505	75
Advertising	4101	46327	71
Health	3143	39779	68
Relationship	2652	34164	62
Gender	3779	52729	76
Discourse	7753	65503	76
Telephone-Communication	1265	10445	43
Public-Relation	5690	44894	69
Telecommunications	1728	15019	48
Public-Opinion	3624	39099	71
Activism	495	2463	22
Internet	3976	39230	76

Performance analysis of the evolution of the communication scientific field. Table 2 shows the performance indexes of each topic. The order in the table is the same as the order of the thematic areas highlighted in Figure 2. Regarding the impact scores, two thematic areas stand out: "News" and "Internet". Both could be considered thematic areas with a global impact, playing a central role in the development of the field. Their evolution of h-index and citations show a rising trend. It is also remarkable the huge rising trend of the thematic area "Internet", which started with little impact and now becoming the origin of a new research area. In fact, since the beginning of this thematic area, the topics covered by the other ones are closely related to "Internet". Moreover, the thematic areas "Children", "Health" and "Gender" achieved a great impact, but their evolution performance was not growing across the periods equally. That is, in the second or third period there was little interest in those thematic areas, but in the last period they continued attracting the interest of the scientific community. The remaining thematic areas could be divided into two groups. On one hand, the thematic areas "Advertising", "Relationship", "Discourse", "Telephone Communication" and "Public Relations" present an adequate impact, and their themes occupy a central position according to their h-index. Also, "Telephone Communication" and "Public Relations" show a small scientific decreasing interest in the central periods. On the other hand, "Psychological aspects", "Audience", "Public opinion" and "Activism" present low impact scores. It should be pointed out that while "Psychological Aspects" and "Public Opinion" present a fading trend, "Activism", although with little impact rate, seems to be the origin of a new research area of interest.

4. Discussion

Regarding the thematic evolution shown by the detected thematic areas (Figure 2), some conclusion should be done:

• The thematic area "Children" is present in the four periods, covering topics related to the communication aspects, behaviour or patterns at different ages. In the first years, it was mainly devoted to the effects and behaviour in the use of media by children and young people. Later, although the interest in children media behaviour and effects continued, new topics related to bullying, attachment formation and relationships, predictors of children's friendships, or the perceptions of their sibling relationships appeared. In the period 2000-2009, there was an increase in the interest of topics related to the behaviour of children on the Internet. Finally, in the last period, the topics covered were focused mainly on the Internet.

• "Psychological Aspects" was devoted in the first period to issues related to compliance gaining and perception. In the second period, it was focused on the levels of processing, dimensions of emotional experience, cognitive capacity, or third-person effect. Later, the topics evolved to narrative persuasion. Finally, some specific Psychological aspects of communication were analysed.

• "News" is one of the main thematic areas of the communication research field. In the first years, it was dedicated to the seeking of gratification, news memory, news comprehension, news structure and diversity of news. In the second period, the interest on it grew up, covering topics related to news coverage of different events, effects of news frames on readers' thoughts and recall, news reception, or the relationship between journalistic story frames and the thoughts and feelings of readers. Next, the thematic area covered a variety of topics, for instance: news

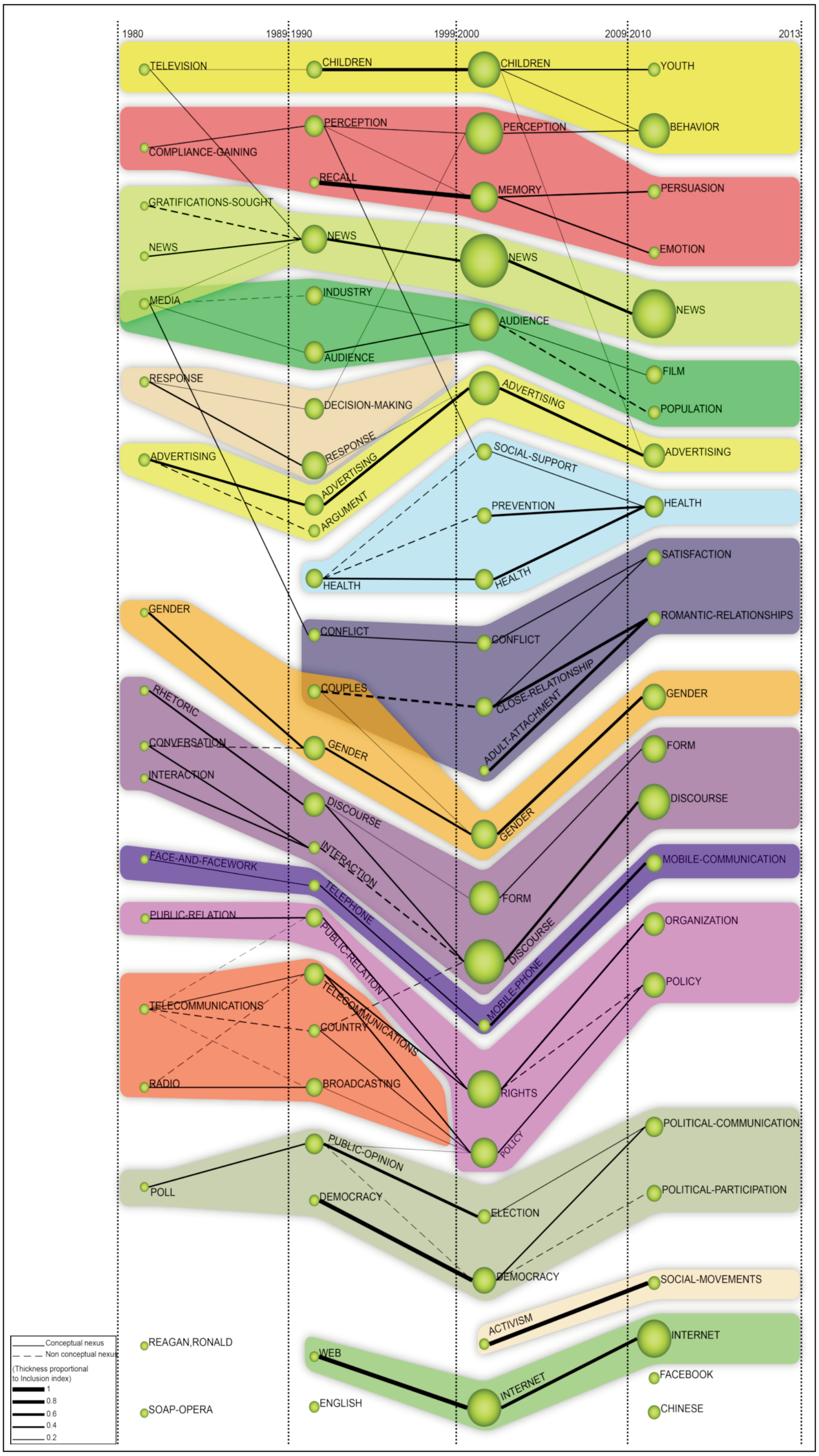

Figure 2. Thematic evolution (1980-2013).

framing, agenda setting, and priming effects, media aspects, news coverage, aspects of online news or event-driven news. Finally, in the period 2010-2013, due to its structural characteristics, it was related to other thematic areas. Some topics covered in those years were: news on Twitter, media and news coverage and framing.

• The thematic area "Audience" was devoted in the first period to the analysis of the audience of different ages, genders, and races, and to the measurement of the audience of television news and soap operas. From 1990 to 1999, it covered topics such as audience reception, perception, and levels, or response to media content. Later, the thematic area focused on specific topics such as relationships between media companies, hostile media perception, television audience polarization, the audience for corporate Web sites and product (or brand), as well as placement in films. Finally, the interest of the audience on the Internet rose during the last analysed period. Also, this area covered journalism audience and campaign evaluation.

• "Surveys" was only present in the two first periods, is an important research area in those years. In both periods, it was devoted to the study of surveys, response rates, deal with non-response or asking for sensitive questions.

• "Advertising" is devoted to producing a purchase by showing the products to consumers and trying to reach their attention. In the first period, it included themes regarding the effectiveness of advertising in different media, image management, political advertising or the use of sex in advertisements. Next, the interest on advertising grew up, is an important motor theme. In the third period, the interest of advertising on the Internet increased dramatically. Also, the thematic area pivoted on other topics such as effectiveness, brand evaluation, credibility and international advertising. In the last period, in addition to the topics covered early, "Advertising" is devoted to in-game brand exposure, children understanding of advertisers and viral advertising effectiveness.

• The thematic area "Health" started in the period 1990-1999 focusing on the health communication related issues, for instance: social support messages exchanged by persons with disabilities, factors influencing responses to questions on sexual behaviour, persuasive health messages, effectiveness health communication or health communication campaigns. Afterwards, it focused on the presentation of health information, information sources, health information seeking and avoiding, and also the analysis of media consumption patterns. Recently (2010-2013), this area has been mainly focused on health communication through the Internet.

• The thematic area "Relationship" compromises the research conducted on the communication process of personal relationships, especially into romantic relationships. It started in the second period (1990-1999), focusing on scales and models. Also, it refers to attachment and coping strategies. In the next period, the thematic area was articulated into three main topics: attachment, dating, couples, and family. Finally, from 2010 to 2013, this thematic area covered predictors of non-marital romantic relationship dissolution, adult and adolescent attachment, online dating, and model for relational turbulence.

• "Gender" started as a thematic area referred to research conducted on differences among genders or specific analysis of the gender behavior. In the second period, it became an important motor theme, and therefore, it was related to themes, such as relationship or advertising effect and reception. In the period 2000-2009, it remained an interest in the gender differences and gender identity, masculinity, male violence, racial minorities, stereotypes, and also the role of gender in the third-person effect. In the last period, this thematic area was heavily influenced by the Internet.

• The thematic area "Discourse" refers to the research conducted on the communication process such as rhetoric, narrative and language. In the first years, it covered topics related to rhetoric of science, link between rhetoric and ideology, reciprocity in negotiations, initial interactions, discourse strategies or narrative in organizations. In the second period, it centred on the research conducted on conversation and language. Also, in those years it began to cover topics related to the Internet. In the third period, it focused on advance communication topics, such as, identity as produced in linguistic interaction, narrative persuasion, discourse analysis, multilingualism among others. Finally, in the last period it continued studying advance issues and topics related to the analysis of on-line discourse.

• The thematic area "Telephone Communication" varied across the periods from studies related to telephone coverage and usage, to mobile phone and mobile data usage.

• "Public Relation" was focused, in the first years, on the communication process in organizations such as social responsibility, moral values, licensing, issue management or role models. Afterwards, the interest continued in aspects related to social responsibility. It should be noted that there was an incipient interest on the relation of public relation and the Internet. In the third period, it covered general and advanced aspects of social responsibility and public relations. In the last period, there was a great influence of the Internet.

• The research area "Telecommunication" was present in the two first periods. In the former, it was focused on broadcasting and telecommunication policy and also in the television deregulation. In the latter, among others, it was comprised on the research conducted in telecommunication behaviour, Internet adoption, differences in Internet connectivity, standards-setting for global telecommunication services, channel repertoire and the differences between VCRS and cable television.

• "Public Opinion" is mainly focused on the democratic process, voter's behaviour and political issues. In the first years, it consisted in the research conducted on polls, evaluation of poll data and voting behaviour. In the second period, it broadened to include topics related to campaign media, democracy deliberation, mediatisation of politics, relation of public opinion and public policy, or the influence of news coverage on the perceptions of public sentiment. Afterwards, it was focused on similar topics and also some aspects related to the Internet. In the last period, the influence of the Internet increased, covering topics such as college students' use of on-line media for political purposes, levels of interactivity of Presidential Candidates' Websites and the influence of these social media on political cynicism. Moreover, it comprised other topics such as civic engagement and democratic communication.

• "Activism" arose in the third period (2000-2009) covering aspects related to some social movements and protests. Moreover, it compromised the research conducted on democratic media activism, and alternative media. In the last period, it was focused on the personalization of collective actions, and many social movements around the globe.

• Since "Internet" appeared as a thematic area in the second period, the whole communication research field has been heavily influenced by it, especially from the third period up to now. In the years 1990-1999, it referred to the research conducted on exploring Web users' motivations and concerns, users' issues, and on-line service adoption. In the third period, it was related to Internet use and social network among others. Finally, in the period 2010-2013 there was an increase interest in communication issues in on-line social network. For instance, whether Facebook users have different connection strategies, such as Twitter, social scientists, predictors of Facebook communication and relational closeness. Also, it comprised the research conducted on e-science technologies, online credibility or the use of big data to resolve significant questions.

5. Conclusion

As pointed above, Communication Research has been labeled as a fragmented field. This survey supports this claim by delimiting sixteen thematic areas with almost no topical links among them. Connections were more common from 1980 to 2000, but in the 21st century, those areas are becoming isolated.

Anyway, this outcome does only reflect scientific production indexed at WoS, which is biased towards the English language. Further research might compare the results with samples from other databases such as Scopus or Google Scholar with a wider geographical and linguistic scope (Delgado & Repiso, 2013), allowing then to significant transnational comparisons. In the same sense, future studies might collect papers according to a purposeful selection of journals.

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Gamification and transmedia for scientific promotion and for encouraging scientific careers in adolescents

Gamificación transmedia para la divulgación científica y el fomento de vocaciones procientíficas en adolescentes

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ABSTRACT

The current growth in gamification-based applications, and especially in what is known as Digital Game-based Learning (DGBL), is providing new opportunities with considerable educational potential. In the present study, we report on the results of the progress of a project for developing a setting for a gamified website carried out ad hoc, complemented by transmedia resources and aimed at scientific promotion and the promotion of technological and scientific careers (S&T) in adolescents, who are at a stage in life when career preferences are established. At present, the decrease in S&T careers is one of the greatest problems for the society of technological development that we live in, where the number of professionals working in key areas for economic development and progress is declining. After completing a pre- and post- project participation survey, the results suggest a high level of efficiency achieved by projects of this type due to their online experimentation design, the knowledge of real cases of research activity, and the communication of positive scientific values and attitudes appropriate for the target population. The participants significantly increased their interest in the subject area, scientific professions, and research activity and their social benefits demonstrating the acquisition of positive attitudes towards scientific knowledge and skills.

RESUMEN

En la actualidad la proliferación de aplicaciones basadas en gamificación y especialmente en el denominado Aprendizaje Digital Basado en Juegos (Digital Game-Based Learning, DGBL) abre un panorama de elevado potencial educativo. En el presente trabajo se muestran los resultados del desarrollo de un proyecto con el funcionamiento de un entorno web gamificado y realizado ad hoc, complementado con recursos transmedia y dirigido a la divulgación científica y al fomento de las vocaciones científico-tecnológicas (CyT) en adolescentes, siendo precisamente en este rango de edad donde se configura la preferencia vocacional. El descenso de vocaciones CyT supone uno de los mayores problemas actuales para la sociedad de desarrollo tecnológico en la que nos encontramos, con un descenso generalizado de profesionales en áreas claves para el desarrollo económico y de progreso. Tras la realización de una encuesta previa a la participación en el proyecto y la misma encuesta tras la realización del mismo, los resultados obtenidos indican la elevada eficacia de proyectos de este tipo, diseñados en base a la experimentación online, el conocimiento de situaciones reales de la actividad investigadora y la comunicación de valores y actitudes procientíficas de forma afín a la población objetivo. Los participantes aumentan significativamente su interés por la profesión científica, la actividad investigadora y su beneficio social manifestando la adquisición de conocimientos y destrezas procientíficas y poniendo de relieve su interés por la temática tratada.

KEYWORDS | PALABRAS CLAVE

Gamification, transmedia, virtual-learning, careers, attitudes, innovation, e-learning, digital game-based learning.
Gamificación, transmedia, aprendizaje virtual, vocaciones, actitudes, innovación, elearning, aprendizaje digital basado en juegos.

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1. Introduction and current issues

The gradual introduction of information and communications technology (ICT) is the greatest challenge faced in education. As with any large-scale methodological change, it is not without controversy and is affected by a lack of resources, misinformation, and all kinds of resistance. Local education authorities, generally limited by scarce resources and a lack of creativity, advocate the convenient stance of "do it yourself", convincing teaching staff that it is part of their duty to innovate, learn new ICT tools, and introduce them into the classroom or school. It is often forgotten that the preparation and use of ICT require teachers to dedicate much more time compared with conventional teaching methodologies (Ferro-Soto, Martínez-Senra, & Otero-Neira, 2009): "the use of ICT can take away time that the teacher needs to carry out the teacher's other official tasks". Nevertheless, it is without any doubt that ICT offers enormous potential in the field of education, creating digital settings, collaborative learning, social mediation and encouraging cross-curricular learning, working on pro-social values and personal attitudes, leading to a less compartmentalised vision of curricular content. Considering ICT as educational tools involves understanding that they provide better channels of educational communication (Coll, Mauri-Majós, & Onrubia-Goñi, 2008). In fact, García-Valcárcel, Basilotta & López-Salamanca (2014) propose "the essential transformation of teaching practice, fostering the development of collaborative projects where ICT becomes a channel of communication providing the information necessary to guarantee learning scenarios which are open, interactive, rich in stimuli and sources of information, and at the same time motivating for the students, focussed on the development of competences".

Gamification is possibly the methodological tool that has received the most attention, and its introduction in education has been considered particularly relevant (Dicheva, Dichev, Agre, & Angelova, 2015; Wiggins, 2016). In recent years we have witnessed an explosion in the use of this term in specialised journals which present gamification as the new key methodology in education, in school settings and especially, in businesses (Prosperti, Sabarots, & Villa, 2016).

1.1. Elements of game-based learning

Gamification has traditionally been defined as the application of game-related elements in activities that are not games and in other contexts including, of course, education. Its main objective is to improve the intrinsic motivation of the participants. Several authors have focussed on different aspects of gamification. For Huotari and Hamari (2012) an important aspect is that gamification processes should evoke the same psychological experiences as games. Alternatively, Deterding, Dixon, Khaled, and Nacke (2011) have noted the importance of including the same features used in games in the gamification process, regardless of the outcome.

For Perrotta, Featherstone, Aston, and Houghton (2013) so-called Digital Game-Based Learning (DGBL) is developed according to essential principles and mechanisms that express its effectiveness. Perrotta indicates five such principles:

• Intrinsic motivation. Much more powerful than extrinsic motivation, intrinsic motivation comes from the willingness of the player to participate: the game invites and persuades people to participate. According to Pink (2011), intrinsic motivation is related to three elements that induce it, namely autonomy, competence, and purpose.

• Learning through intensive enjoyment. For one group of authors, led by Csikszentmihalyi (Nakamura & Csikszentmihalyi, 2009), gaming leads the participants into a flow (Csikszentmihalyi's Flow Theory), considered as a state of consciousness in which the individual has control over his or her actions while being completely absorbed in the task they are carrying out. Csikszentmihalyi points to eight components that enable flow: that the task is doable, involves concentration, clear objectives, feedback, effortless involvement, control over the actions carried out, the disappearance of one's consciousness and the loss of sense of time.

• Authenticity. Concern about the real nature of learning compared to more artificial decontextualised ways of traditional teaching. Priority is given to contextual abilities rather than abstract notions of formal learning. Learning processes based on specific practices.

• Autonomy. Playing games encourages independent exploration, bringing together personal interests and preferences, especially in one's surrounding ecosystem such as in technical and artistic skills (writing, drawing, music) while at the same time encouraging interest in gaining more information about other subjects, such as science or history.

• Experiential learning. Gaming makes it possible to handle situations in which "learning by doing" is a tangible, programmable and manageable option.

According to the literature about this subject, we can identify eight essential elements in the design of games that are usually applied in educational contexts (in DGBL):

• Points. These are a quantitative evaluation of the advances achieved by the player and are usually used as an immediate reward for his or her effort and as a proactive element in the evolution of the player in the game.

• Levels. Levels have normally been used to show the progression in the development of the game. They have been considered as synonyms of the grade of difficulty. The increase in level serves a purpose as a common reward in games, used when tasks or missions have been completed. It is very important to adjust the grade of difficulty for the transition between levels to prevent participants from dropping out or becoming demotivated (All, Nunez Castellar, & Van-Looy, 2014).

• Insignias and badges. These are considered as a visible sign of achievement obtained and aim to maintain the player's motivation at an adequate level for the following tasks (Gros & Bernat, 2008). Insignias are particularly effective to focus the player's interest in resolving future challenges or objectives (Chorney, 2012; Santos, Almeida, Pedro, Aresta, & Koch-Grunberg, 2013).

• Classification tables. These improve participant motivation, incentivising their performance in the game and is a way of improving positions. They show the participants' best scores and are regularly updated. According to O'Donovan, Gain, and Marais (2013), they increase the motivation of participants in educational gamification projects.

The Antarctic Project has been the first experience of specifically designed transmedia gamification carried out in Spain for its mass application. For this reason, in its initial design elements could be taken into account that would have been difficult to include using more limited means, such as the transmedia component, the specially designed programming, or the involvement of pro-science entities, to name a few.

• Prizes and rewards. The use of prizes and rewards in the game has been confirmed as a powerful motivator for participants (Brewer & al., 2013) and consequently, their timing in the game and the number of rewards obtained are of special relevance to players' motivation (Raymer, 2011). The rewards calendar should be adjusted in line with the educational content, the difficulty of the tasks and game levels, preventing possible areas of demotivation and tiredness (Gibson, Ostashewski, Flintoff, Grant, & Knight, 2013).

• Progress bar. This shows the stage of development of the game, the level the player is on, how much he or she has advanced, and how much is left.

• Plot. The story behind the game which gives it meaning. Kapp (2012) suggests that a good plot helps participants to achieve an ever-increasing level of interest, keeping their attention throughout the game, increasing the chances of reaching the end and reducing "dropouts". The plot also provides a context that is very useful for learning, problem-solving, simulation and the like, making it possible to illustrate and practice the applicability of the concepts.

• Feedback. The information about the player's activity is given back to him. Its effectiveness will depend on its frequency, intensity, and immediacy (Raymer, 2011; Kapp, 2012; Berkling & Thomas, 2013). Higher frequency and immediacy are related to better results in the game-based learning process. Similarly, feedback is an important indicator of efficiency and immersion in the dynamics of the game (Domínguez & al., 2013).

Once the essential elements of a DGBL product have been configured, it is necessary to check how to strengthen its effects, and in particular, to identify the ideal area for its application (Foncubierta & Rodriguez, 2014).

1.2. The transmedia component

The narrative term transmedia was introduced by Henry Jenkins in 2003, in an article published in "Technology Review", in which he suggested that "we have entered a new era of the convergence of means which makes

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it inevitable for contents to flow through different channels". According to Jenkins transmedia narratives are "stories told through a combination of means". For Scolari (2013), transmedia storytelling is "a particular narrative form that expands through different meaning systems (verbal, iconic, audiovisual, interactive, etc.)".

Following his article, Henry Jenkins defined the main principles of transmedia storytelling:

• Expansion vs. depth: Viral expansion through social networks vs. penetration in audiences until they become unconditional fans.

• Continuity vs. multiplicity. Continuity of expression of languages, means, and platforms vs. multiplicity of the creation of experiences starting from the initial plot.

• Immersion vs. extraction. Immersion in the proposed plot vs. extraction of the elements of the story to fit them into the real world.

• World building. Elaboration of characteristics that enrich and make the story realistic, such as details about the characters, the setting, etc.

• Seriality. Organization of the pieces and elements of the main story in a sequence that involves different kinds of media.

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• Subjectivity. A mixture of multiple points of view regarding participating characters and plots of the core story.

• Performance. The consumers of the story can promote the main story even converting themselves into creators of similar or complementary contents (pro-consumers, according to Jenkins).

The combination of principles of gamification and transmedia storytelling offers an educational universe with endless potential that fits in and corresponds to the profile of the user that we are dealing with in an educational setting: a multiplatform and an immersive user who can handle multiple tasks at great speed. The user prefers to personalise and manage his or her experiences, making them his or her own, actively participating in, and creating them. The passive teacher became history a long time ago.

1.3. Scientific promotion, attitudes, and pro-science careers

Public attitudes to science not only have an effect on performance in science subjects at school. They can also have an influence on the way society thinks and acts, its social image (and, consequently, the socioeconomic support for scientific research and programs), or the number of researchers or professionals in this field of knowledge (Pérez-Manzano, 2013). Together with this, the persistent decrease in interest in S&T careers is especially relevant (which has been confirmed in a report by the European Commission in 2004) and contrasts with the increase in the demand for S&T professionals.

The relationship between attitudes towards science and S&T careers is clear, and several findings have emerged as a consequence of the high level of scientific production generated about this matter:

• In the ROSE project (Schreiner & Sjøberg, 2004) it has been shown that there are "certain trends or regularities". For example, there is an inverse relationship between the stage of development of a country and the positive attitudes towards science in young secondary school students (Sjøberg, 2000); Schreiner & Sjøberg, 2005). The decline in pro-science attitudes firstly has consequences for the selection or rejection of subjects and scientific contents, and secondly, it has an effect on the number of professional careers chosen and even generates fixed personal attitudes that are either pro or anti-science.

• Career decision-making becomes stronger among those aged between 14-16 years, that is, those in the 3rd and 4th year of Compulsory Secondary Education (CSE) in Spain.

• The variable of gender is very relevant. Stereotypes, clichés, and social traditions arise when certain professions are related to this variable (Murphy & Beggs, 2003; Vázquez-Alonso & Manassero-Mas, 2009).

• An important component in the career decision-making of girls is the social benefit of the chosen profession as well as the contact with others as a result of carrying out this profession (De-Pro & Pérez, 2014).

2. Material and methods

In light of the aforementioned framework, we considered the need to carry out a project which would facilitate the promotion of scientific activity through a gamification development with transmedia support which could provide an immersive and participative experience.

We proposed the promotion of scientific-technological careers as our general objective by focussing on three components, usually identified in research into the topic as being essential for configuring a clear scientific and technological career:

• The career-decision motivations of active scientists.
• Interest in the real daily work of a researcher.
• The social benefit of scientific activity.

These would be reinforced by two complementary cross-curricular objectives: the management of scientific methodology and the knowledge of unique scientific and technical infrastructure (ICTS) linked to the Region of Murcia (the Hespérides Research Vessel and, therefore, the Antarctic bases) as well as the research carried out from them and their consequent social repercussions. The ICTS are front-line scientific installations at a national and international level that, by themselves, take up most of Spain's scientific budget and that, in several previous studies (Pérez-Manzano, 2013; De-Pro & Pérez, 2014) appear to be completely unknown to the general public and students of CSE in particular.

We assigned the name of "Antarctic Project" to this proposal. Once it had been designed and presented, its development was accepted by the Telefónica Foundation with the participation of the Local Education Authority of the Region of Murcia (through the Seneca Foundation, the Regional Science and Technology Agency) with the collaboration of the Spanish Polar Committee, the Spanish Army, and the Navy. An exclusive application of the project was offered to secondary schools in the Region de Murcia.

2.1. Methodology

The Antarctic Project consisted of a diverse set of tailor-made materials designed around and supporting a story that is able to attract the target population. It included the following components:

a) Storyline. Given that the whole development of the materials revolves around a storyline, its construction was very important, and the number of transmedia materials produced was determined by it. As the common thread, it was decided to narrate a situation in which different acts of sabotage had been carried out on the Hespérides vessel and the Gabriel de Castilla station to destroy scientific installations or active research development. The idea is passed on that there is a saboteur interested in eliminating the research activity in Antarctica. As the plot develops, the participants can appreciate the social relevance of the research carried out there as well as the fairly unethical activity on the Antarctic continent (indiscriminate tourist use or environmental deterioration). Careful consideration was given to the timeline of the plot to coordinate the contents, level of difficulty, news, communications, and other features.

A certain amount of responsibility was required in developing the plot which is a key aspect of a project of this nature to guarantee the level of immersion in the story used, reinforcing participation and reducing dropouts during the development of the project, and maintaining the interest and motivation of the participants over the three months that the Project lasted.

b) Web 2.0. For the system, a "web responsive" application was designed (adapted to smartphones and tablets) to allow access to the contents in an accessible and clear way. The web can be accessed by four types of user profiles: student, teacher, families, and pro-science centres (the latter is for personnel in museums, exhibitions, and scientific installations). The web environment has the main access to the control terminal from where there is access to relevant information such as:

• Active research: Eight real research projects were chosen from the 2014 and 2015 Spanish Antarctic Campaign. To select them, the curricular contents of the 3rd and 4th year of CSE in related subjects in the first term of the academic year were taken into account as well as their heterogeneity and repercussion on society.

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Dossiers were included about antecedents, how to deal with this problem, the need for research, its results, and social effect.

• CVs of the participating characters: Information about each of the characters. Three types of character were constructed: researchers, military personnel, and civilians. We collaborated with eight real researchers responsible for each one of the selected research projects, showing an informal CV for each with personal details, hobbies, their reasons for choosing research as a profession, etc. as well as a contact email address on the platform which could be used to ask them real doubts about their work as a researcher. Similarly, the CVs of the real military personnel of the active campaign were included, three from the Hespérides vessel, and three from the Gabriel de Castilla station. As civilians (not real ones), two protagonists were designed and three civilians completed the story.

• Installations: access to the game in the Hespérides vessel and the Gabriel de Castilla station, four scenarios in each one of these, perfectly recreated using photographs of these.

• Video blogs: weekly audiovisual reports to support the plot.

• Ranking: a table was completed with the ten best individual scores and for each school.

• Tasks: problems of a scientific nature to be resolved according to the needs of the story.

• News: a news bulletin that updated the story daily as the plot unfolded.

c) Game. Eight interactive scenarios were designed in a game format. Of these, four corresponded to the Hespérides and four to the Gabriel de Castilla station recreating real scenarios based on illustrations taken from photographs provided by the Army and Navy as a basis to work on. In each one of them, a scientific-type online challenge was planned to be carried out using the digital materials available in the available scenarios. Each scenario was coordinated according to the calendar, the research to be carried out, and the difficulty ratings of the game. At the start of the game, two scenarios were available (one in the Hespérides and another at the station) so that, depending on progression in the dynamics of the game, the other scenarios could be unlocked and points obtained.

In the different scenarios, elements were collected and combined so that it was possible to resolve the online challenges proposed (assay tubes, eyepieces, black light torch, etc.).

d) Protagonists. Two profiles were designed for the protagonists attending to the characteristics of the target population of the 3rd and 4th year of CSE paying special attention to the combination of pro-science interests, very up-to-date interests, and those that the target group could identify with. Boys and girls, students from Secondary Schools in the Region, both collaborated with the research teams of the Campaign. The two characters had profiles on social networks and undertook active communication with the participants (https://goo.gl/9vubBd).

e) Webisodes/video blogs. Fictional audiovisual materials with actors representing the protagonists and a post-production phase highlighting dramatized situations were coordinated with the story as triggers of moments in the story, generating or making way for problems that the participants had to decide how to resolve, choosing different alternatives before continuing. They can be seen on https://goo.gl/s76E6Q.

f) Challenges, tasks, and S&T curricular content. Obtaining points, insignias, or rewards were established attending to the two types of problems to be resolved. On the one hand, the online challenges were resolved in each scenario of the game (for example, analysing tissue samples from a penguin) providing individual scores. Once the challenge had been resolved, the weekly task was activated, a problem to be resolved similar to those seen in related subjects (resolving a ship's steering angle needed to avoid a collision), and the answer to the challenge had to be entered while playing the game. Based on performance on these tasks, the score for the schools was obtained (scored according to the number of students in the 3rd and 4th year of CSE in the school). Only by resolving challenges and tasks was it possible to go to the next level. Both were published on Mondays at 9 a.m., with the activation of the corresponding video blog, reducing the points to be obtained in the following days. Support messages were programmed to be sent to the participants' mobile phones and their twitter account. Similarly, if no response had been given by Thursday, a new videoblog was activated with clues to resolve the weekly challenge.

The complementary materials for the classroom designed using the curricular contents of the scientific subjects studied in the first term by the students on this project were aimed at: Natural sciences (3rd year CSE), biology and geology (4th year CSE), physics and chemistry (4th year CSE).

1) Extra teaching materials (for teachers, families, museums, ICTS). Materials to be used in the classroom were designed based on the curriculum contents of the 3rd and 4th years of the aforementioned subjects. A prior training activity was carried out for the teachers interested in participating (with more than 80 enrolled). As part of this activity, they were informed how the platform could be used. The teacher profile allows for the follow-up of students in his or her classes, monitoring of the results, errors, evolution, rewards, and other indicators.

Similarly, materials for families were designed using simple resources to develop contents or carry out experiments with homemade materials, and the like. These materials were distributed with plenty of time through the parent associations at the schools. Finally, the materials for pro-science schools (ICTS-Science Museums) were a collection of different resource packs organised in connection with the subject area of the project to create and revitalise workshops and visits.

2) Social Dynamics. Profiles were designed on the social networks of the protagonists of the story to complement it and make it more dynamic. A timeline was constructed for the communications made via social networks between the protagonists and participants, which was informal and mechanised, and linked to individual evolution in the game. The system made publications on Facebook or Twitter depending on weekly activity according to the storyline.

3) Values and attitudes. Having taken into account the previous relevance of attitudes and values in career decision-making, special care was taken in showing very up-to-date pro-science attitudes in the protagonists with common personalities and interests among the group. These were related to the real personalities of the scientists, attempting to move away from stereotypes about their image. The plot highlights the social benefits of the research done there, as well as the importance of taking care of the environment.

2.2. Study sample

Just as we have mentioned previously, the project was proposed to the Autonomous Community of the Region of Murcia, offering participation to all the secondary schools in the region through a public call for expressions of interest by the Local Education Authority. A maximum of 1,741 active students participated in the project resolving tasks and challenges every week (in addition to 465 teachers and 49 secondary schools). From these students, 100 participants were chosen at random to respond to an online survey with five questions at the beginning and the end of the project.

2.3. Procedure

The following questions were posed to the 100 selected participants:

- Have you heard about the research carried out by Spain in Antarctica?
- Do you know what takes place on the Hespérides vessel and at the Gabriel de Castilla station?
- Do the Army and Navy collaborate in the research carried out by Spain in Antarctica?
- Rank from 1 to 10 the benefit that you believe the research carried out in Antarctica provides for Spain?
- Would you like to be one of the scientists who do research work in Antarctica?

3. Analysis and results

An analysis was carried out of the different participants' access to the game and the resolution of the set challenges. The number of participants has been fairly constant, with mean weekly access of 1,503 students. It has been very useful to check how the number of entries in the last week is higher than in the first, suggesting the addition of participants once the project was underway. All of these indicators highlight that two elements of the project are working.

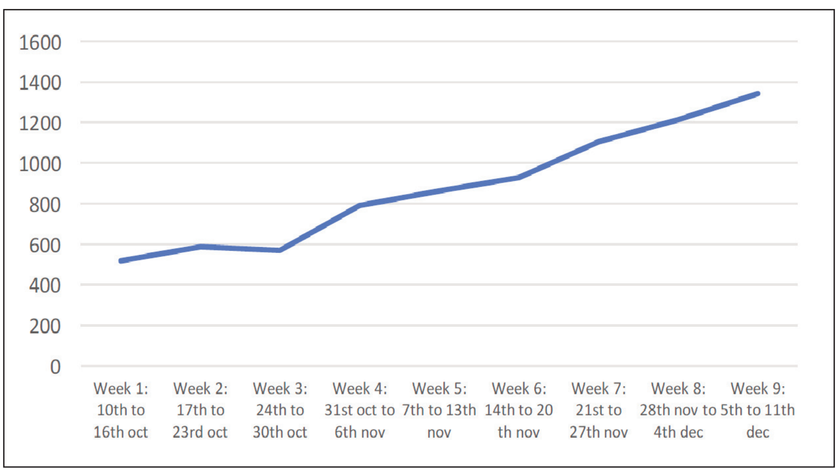

Figure 1. Mean Time.

- The distribution of the contents and scaled levels subject to overcoming tasks. This has made it possible to

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maintain interest from week to week, "enticing" the users much more than if they had been shown all the scenarios and contents at the same time.

• The efficiency of the plot and scripting of the contents, meaning that one of the highest levels of entries took place the week it was resolved, with the identification of the guilty person. This was a good indicator of the immersion of the participants in the constructed story.

One important aspect regarding this information is the mean time dedicated by the participants to stay in the game. The mean staying time is directly related to the rate of difficulty. Therefore, its graphic representation should coincide with a fairly gradually ascending line. The data is shown in Figure 1.

As can be seen in the Figure, the line slowly increases so that the average time in the end doubles the average at the beginning. In light of this increase, we can see that the level of difficulty was correct regarding the development of an approach to the contents of the Project. We shall now analyse the data obtained by the selected sample in the pre- and post-project survey.

In Figure 2, we can see that initially, 18.7% of the participants knew about the research developed by Spain in Antarctica. After participation in the project, 100% knew about this work.

As in the previous question, we analysed the participant's knowledge of the activity of the Hespérides and the Gabriel de Castilla station. Before participation in the project, 11.37% of them knew about it whereas, after participation in the project, 100% understood about this participation.

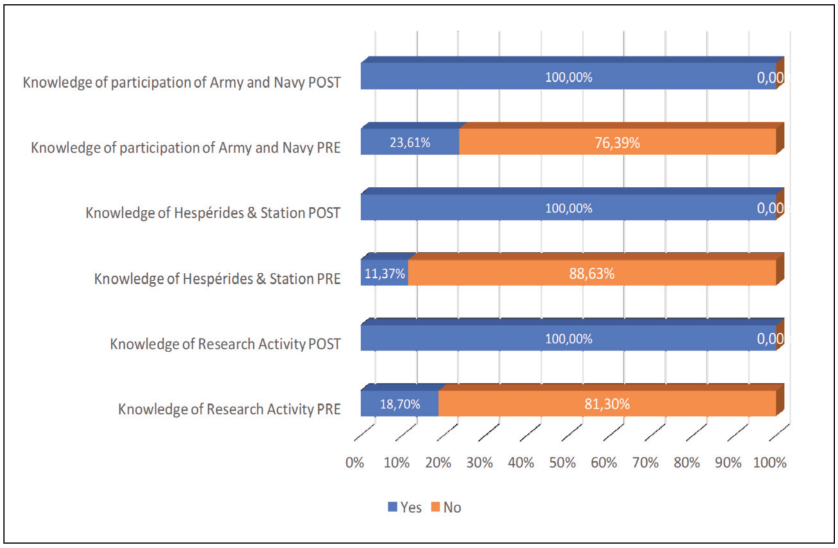

Figure 2. Evolution of Previous Knowledge.

Likewise, the work of the Army and Navy in management, logistics, and in general support in the Spanish research work in Antarctica is usually quite unknown, and therefore it is interesting for us to find out about their previous knowledge and their evolution in the project. In Figure 2, we can see how only 23.61% of the participants stated knowing about the military and naval collaboration before the project. After participation, this percentage reached 100%.

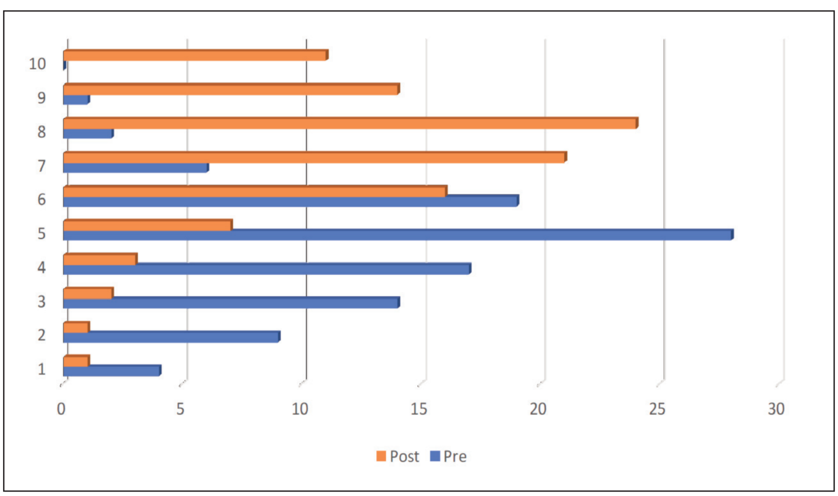

Figure 3. Assessment of the social benefits of Antarctic Research.

In this question, we observed scores (from 1 to 10) taken from the sample about the possible social impact of Antarctic research. As we can see, the pre-project assessment is quite harsh, with a mode of 5, and where the vast majority of scores are displaced towards the lowest scores. This contrasts with the post-project scores, where the mode is 8, and the score curve is displaced towards the upper zone.

This is probably the most anticipated question of those posed, assessing the effect of the project on the participants' interest in S&T careers. As we can see in Figure 4, previous interest in scientific professions was 9.39% in the pre-project sample, and after participation in this project, this percentage rose to 34.16%. We can see how professional interest in S&T has gone up very significantly.

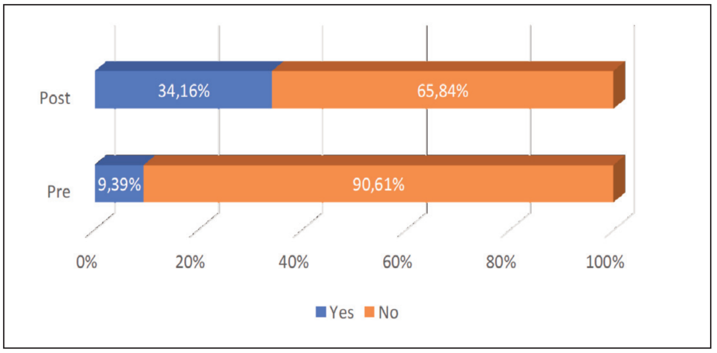

Figure 4. Interest in Becoming a Scientist.

4. Conclusions

Our general approach to the proposal was to follow a central element in gamification; according to (Hamari & Koivisto, 2013) "the main objective of gamification is to have an influence on people's behaviour, regardless of other secondary objectives such as people's enjoyment while taking part in the activity of the game". Our proposal intended to go beyond the proliferation of game design elements that arise from the "do it yourself" techniques that we discussed at the outset. The limitations of this type of development are clear, restricting its reach, effects, and possibilities. The Antarctic Project has been the first experience of specifically designed transmedia gamification carried out in Spain for its mass application. For this reason, in its initial design elements could be taken into account that would have been difficult to include using more limited means, such as the transmedia component, the specially designed programming, or the involvement of pro-science entities, to name a few.

In the structure shown in Figure 5, we have considered the participation of all the players involved, each of them for different reasons. Institutionally, it is essential to coordinate scientific promotion campaigns among ICTS, science museums, fairs, and schools as a way to make the most of their efforts and to harmonise their interests, needs, shortcomings, and expectations. In scientific promotion and communication programs, it is necessary for scientists to be present as a way to eliminate classic stereotypes that persist today (scientist = clumsy, badly-dressed, not at all modern, etc.). The proximity of this group, its togetherness (the participants exchanged emails with the researchers about doubts and comments about their work), its interest of their work for society, etc. are key elements that were very evident in the program design.

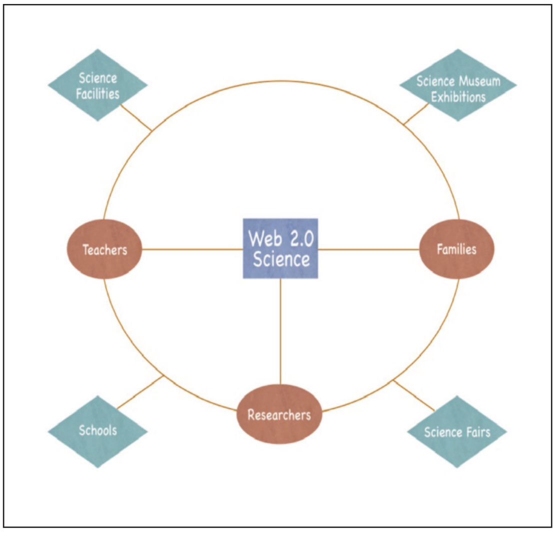

Figure 5. Model of Scientific Education.

In light of the results, we can confirm that we achieved the objectives we aimed at initially. The participants have had the opportunity to find out about the motivations for career-choices of active scientists and to see the interest and social benefit from research work in general while handling scientific methodology and learning about the work carried out at an ICTS. The previous lack of knowledge of Spanish research activity in Antarctica, the work of the Hespérides and the station, or the essential support of the Army and Navy are concerning and point toward the lack of knowledge affecting the heart of S&T actions and policies in Spain and, therefore, the decrease in demand for careers in this field. In this regard, our general objective of fostering vocational interest in S&T professional fields has been fulfilled with a clear and very relevant effect on the participants.

The use of elements close to the target user is of particular importance for achieving our objectives. It is essential to have an attractive storyline and, above all, to have protagonists the participants can easily identify with regarding likes, hobbies, and preferences. The use of messaging and publications on the protagonists' social networks has greatly helped to increase the participants' immersion and make the plot realistic. To do this, we must not forget the importance of illustrations and designs, a realistic reflection of real-life scenarios, even the complete 3D design of the Hespérides vessel and the Gabriel de Castilla station.

By carrying out this project, we have charted an especially interesting path for local authorities to carry out specially designed gamification programs with transmedia support, involving all the players in a common and coordinated effort. The initial financial cost is quickly overcome in the following years, repeating the story in different groups of students, or only changing the plot and characters. A project of this nature can make way for changes in the story by multiplying different developments that use the same core software. The efficient use of public investment in these tools is inevitable if we want to implement efficient and innovative technology in education that goes beyond isolated individual experiences.

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From sMOOC to tMOOC, learning towards professional transference: ECO European Project

De sMOOC a tMOOC, el aprendizaje hacia la transferencia profesional: El proyecto europeo ECO

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ABSTRACT
The evolution of MOOCs in the last decade has been constant and dynamic. The first cMOOC and xMOOC models eventually evolved into different postMOOC modalities, such as sMOOC, which conjugates interaction among students with a participation model based on social networks. This work is focused on carrying out a systematic review of the state-of-the-art scientific literature referred to the concept of MOOC and its diverse types. Moreover, in this article, a new generation associated to sMOOC is unveiled: the tMOOC (Transfer Massive Open Online Courses). The methodology of study is based on the content analysis of those categories resulting after compiling 707 entries from Web of Science, plus an in-depth study of the 70 articles which were quoted at least 10 times. In addition, a case study has been carried out from European ECO Project's "sMOOC step by step", as an example of innovative pedagogical model based on collaborative learning to train future e-teachers. The results of the analysis show the very recent –and still scarce– research on the different types of MOOCs, as well as the finding of a new modality based on pedagogical transformation, learning transference and intercreative talent. As a conclusion, the analysis of all key factors in the configuration of tMOOC suggests a new taxonomy based on the 10 T's.

RESUMEN
La evolución de los MOOC en la última década ha sido constante y dinámica. Como antecedentes, los primeros modelos de cMOOC y xMOOC se transforman en otras modalidades postMOOC, como los sMOOC, que conjugan la interacción entre los estudiantes con el modelo de participación implantado en las redes sociales. Este trabajo tiene como objetivo realizar una revisión sistemática del estado de la literatura científica sobre el concepto MOOC y sus distintas tipologías. En este artículo, se descubre una nueva generación asociada a los sMOOC, los tMOOC (Transfer Massive Open Online Courses). La metodología de estudio se basa en el análisis de contenido de las categorías resultantes en los 707 registros recogidos de Web of Science, profundizando en los 70 artículos que obtuvieron al menos diez citas. Además, se ha realizado el estudio de caso del sMOOC «Paso a paso» del Proyecto Europeo ECO, como modelo pedagógico innovador, centrado en el aprendizaje colaborativo para la formación de futuros e-teachers. Los resultados del análisis muestran la reciente y escasa investigación sobre los diferentes tipos de MOOC, así como el hallazgo de una nueva modalidad basada en la transformación pedagógica, la transferencia del aprendizaje y el talento intercreativo. Como conclusión, el análisis de todas las claves de la configuración del tMOOC lleva a proponer una nueva taxonomía basada en las 10 T's.

KEYWORDS | PALABRAS CLAVE
sMOOC, tMOOC, learning transfer, pedagogical transformation, interaction, transmediality, intercreative talent, collaborative work.
sMOOC, tMOOC, transferencia de aprendizaje, transformación pedagógica, interacción, transmedialidad, talento intercreativo, trabajo colaborativo.

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1. Introduction and state of the art

The scientific community is nowadays highly concerned about the search of a model able to provide a response to the current social demands on lifelong learning. MOOCs (Massive Online Open Courses) have emerged as an answer to such a call, with ever innovative and diverse modalities. Nevertheless, the two initial goals pursued by Siemens and Downes' first MOOC launched in 2008, based on the construction of participative and "connectivist" learning as the driving force for motivation, have not been actually accomplished. From traditional models based on connectivity –cMOOCs (Yeager, Hurley-Dasgupta, & Bliss, 2013; Wenqiang, 2012)– or those based on behaviourism and cognitivism –xMOOCs (Daniel, 2012; Yousef & al., 2015)– multiple and different modalities have developed, progressively integrating new features to their composition. We are in the post-MOOC era and a controversial criticism to these courses has arisen, in two ways. On the one hand, traditional measures for success show that completion rates are lower (5-8%) than those in classical e-learning courses (20-30%) and, on the other hand, its massiveness has turned them into methods of "transmissive" learning (Capuano & Caballé, 2015; Daradoumis, Bassi, Xhafa, & Caballé, 2013).

The sMOOC (Social Massive Open Online Course) is among the latest proposals. The initial "s" stands for two terms: social and seamless (Camarero-Cano & Cantillo-Valero, 2016). These sMOOCs are "social" because they encourage interaction in learning, thus following the track of Collaborative MOOCs; and "seamless" because they are constantly accessible. The latter implies yet another important feature, the courses' ubiquity, which makes access possible anywhere, anytime and through any devise.

Between 2014 and 2017, ECO (Elearning, Communication and Open-Data) European project was developed from that initial sMOOC concept. The main differentiating characteristic in this macro-project, which has involved over 55.000 students and trained more than 200 e-teachers, is the training received toward the creation of their own massive courses. This way, we have reached the yet innovative tMOOC or transferMOOC model, aimed at providing participants, through collaborative work in a pro-common dimension, with the competences needed to implement every tool, learning method, peer-to-peer assessment system, etc., in their own courses, focused on their topic of choice.

This new generation of tMOOC focuses on the transfer of learning and pedagogical transformation by generating interest towards action and professional interaction. Regarding this two-fold dimension, progress might be perceived as directed towards a modality which has been already proposed by some researchers (Cabero, Llorente-Cejudo, & Vázquez-Martínez, 2014; Vázquez, López, & Sarasola, 2013) and known as tMOOC. Our proposal, however, goes beyond the simple resolution of tasks and activities by students that those researchers refer to.

In this study, we account for a new proposal in which traditional characteristics based on "authentic tasks" merge with some other features until the 10T's representing this new tMOOC model are achieved: authentic tasks, transfer of learning towards profession, pedagogical transformation, ICRT, transmediality, open temporality, transnationalism, intercreative talent, collaborative teamwork and tolerance.

The initial dichotomous typology (cMOOC and xMOOC) has progressively multiplied into several MOOC modalities, often determined by the context. Such is the case of bMOOC (Yousef, Chatti, Wosnitza, & Schroeder, 2015) or mMOOC (Dubosson & Emad, 2015), which combine different characteristics by showing mixed traits from previous models.

Clark (2013) adds corresponding prefixes in order to establish eight modalities: transferMOOC (e-learning courses converted to MOOC format); madeMOOCs (including videos and interactive resources, promoting interaction and peer-to-peer-assessment); synchMOOCs (with starting and ending dates previously arranged); asynchMOOCs (with flexible deadlines and no previously fixed dates); adaptiveMOOCs (a personalised learning method based on dynamic assessment through adaptive algorithms); groupMOOCs (collaborative learning for specific groups); connectivistMOOCs (promoting relationship among participants); miniMOOCS (short in duration and contents).

Additionally, Sánchez-Gordon & Luján-Mora (2015) include further modalities to MOOC taxonomy, by modifying its initial or final letters as a sign of identity for each, such as the SPOC (Small Private Online Course), in which access is restricted to a certain amount (dozens or hundreds) of students in order to prevent high drop-out rates. This modality was coined by Armando Fox at Berkeley University in 2013 and it is based on the "flipped classroom" model (Johnson, Adams, Estrada, & Freeman, 2015).

Likewise, Conole (2016: 10) carries out a classification based on twelve dimensions: degree of openness, scale of participation (massification), amount of multimedia used, amount of communication, degree of collaboration, type of learning pathways (from a teacher-centred and highly structured student), level of quality guaranty, how much is reflection promoted, how formal or informal the course is, autonomy and diversity.

Finally, Altinpulluk y Kesim (2016) have recently proposed yet another typology in the following terms: COOC (Classically Offered Online Classes), a model according to which courses are 100% online and increase quality by focusing on cutting educational costs; DOCS (Digital Open Courses at Scale), where the term online has been replaced by digital, and massive by scale; gMOOC (Game-based Massive Open Online Course), which use virtual games and resolve problems through gamification, among others. These authors include in a taxonomy, for the first time, ECO sMOOC (Social Massive Open Online Course) as a model in its own right, referring to its higher degree of interaction and social participation as a distinguishing feature, in addition to its ubiquity and its accessibility from different platforms and support systems, which enables it to become integrated in real-life experiences.

All the aforementioned formats and modalities showing scientific literature about MOOCs have been increasingly abundant in recent years, as proved by bibliometric research (Aguaded, Vázquez-Cano, & López Meneses, 2016; Mengual-Andrés, Vázquez-Cano, & López Meneses, 2017; Sangrà, González-Sanmamed, & Anderson, 2015; Zancarano & Cavalho-de-Souza, 2017).

> sMOOC (Social Massive Open Online Course) are courses based on two terms: "social", because they enhance interaction in learning, and "seamless", because they are constantly accessible. Their distinguishing characteristics for teachers training model are: a higher degree of interaction and social participation is implemented, they are ubiquitous and accessible from a wide range of platforms and support systems and can be integrated in real-life experiences.

2. Materials and methods

Through a systematized review of scientific literature, this work aims to analyse the state of the main research trends about MOOCs and their modalities, in order to analyse the pedagogical innovation model used in sMOOC "Step by step". Purposefully, an updated documental descriptive analysis has been carried out among studies compiled from major Scientific Literature databases. As a result of the qualitative research proposed, together with the sMOOC "Step by step" (2015) case study, tMOOCs are presented and established as constructs derived from sMOOCs, which must comply with the 10T's taxonomy.

For the documental analysis, a search for the terms "MOOC", "MOOCs", "cMOOC", "cMOOCs", "xMOOC", "xMOOCs", "sMOOC" and "sMOOCs" was carried out among academic works published in the main reference on scientific literature: the compilation on Web of Science (WoS) at Clarivate Analytics. Moreover, the search was restricted to the Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI) and the Emerging Sources Citation Index (ESCI). Under these searching criteria, 707 matches were obtained and, bearing in mind that the MOOC concept was coined in 2008, no scientific literature was to be found until some years later. All the references found corresponded to the subject of study so that there was no need to discard any of them.

The studied concepts first appear in 2013. An interest can be noticed in the publication of material referred to the MOOC concept and the cMOOC modality. Overall publications on MOOCs increased until 2017 while xMOOCs have gained prominence in scientific literature from 2014 onwards. Remarkably, the term sMOOC appears abundantly in 2016 and is widely present in 2017 documents. Additionally, the terms "tMOOC" and "tMOOCs" were also searched, but no results were obtained in WoS.

As the following step, a qualitative content analysis was carried out through Atlas.TI software in order to codify the most significant content categories, which had been highlighted by the authors in their publications. Finally, as criteria to narrow down the sample, only those documents which had been previously quoted at least ten times in further scientific materials were used, resulting in a final sample of 70 records (Figure 1).

The actions carried out in WoS were complemented with ECO's sMOOC "Step by step" case study, which

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played the role of MOOC research laboratory for three years. It is a model case due to its design (Coller, 2005) within the European research work. The case is also relevant, both theoretically and experimentally, to reboot the connection between teachers training and the subsequent professional transference. That is exactly what the tMOOC construct claims. The strategies followed in the case study are the participating observation from the teaching team's point of view, a satisfaction questionnaire filled by participants and the non-participating observation of e-teachers work in their own tMOOCs. In order to ensure its reliability, four iterations of the sMOOC "Step by step" have been run and no significant deviations in results have been observed after each edition. The internal validation has been guaranteed through the assessment of ECO experts which have not taken part in the sMOOC "Step by step".

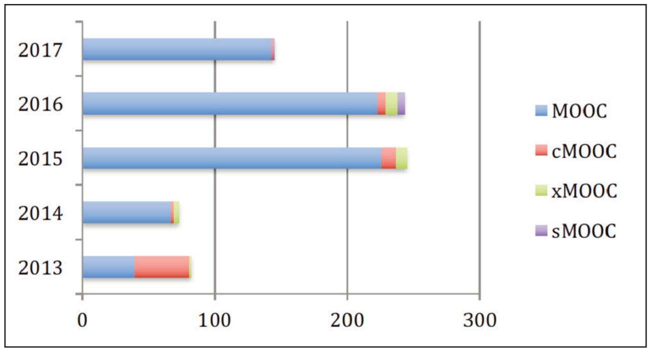

Figure 1. Dates in WoS records and amount of published documents.

3. Analysis and results

Firstly, this work carries out an in-depth review of the contents of the documents provided by the databases included in WoS, which consist of articles, communications/papers in relevant lectures, reviews, etc. Results have then been compared with those obtained in the sMOOC "Step by step" case study (Table 1).

Most interestingly, Table 1 shows that all documents concerning the different types of MOOCs are scientific articles; no other formats are used. Moreover, most documents focused on the overall MOOC concept are also articles. As a matter of fact, the articles account for 84.83% of the total sample, a clearly higher figure than the one reached by other documents: communications/papers (1.42%), reviews (1.98%) and further documents such as editorial materials, scientific letters, etc. (11.77%).

Table 1. Frequency of occurrence of the searched terms in each type of document

TYPE OF DOCUMENT	MOOC/MOOCs		cMOOC/cMOOCs		xMOOC/xMOOCs		sMMOC/sMOOCs	
	n=705	%	n=22	%	n=22	%	n=6	%
Articles	598	84.83	22	100	22	100	6	100
Communications/papers	10	1.42	-	-	-	-	-	-
Reviews	14	1.98	-	-	-	-	-	-
Others	83	11.77	-	-	-	-	-	-

Table 2 below highlights the categorization of content from the 70 documents recorded in WoS which have been quoted at least 10 times, along with each category's frequency and content code. Frequency sorts in descending order the scientific community's research interests concerning MOOCs and their typologies.

According to the resulting frequencies, the degree of interest raised among the scientific community about MOOCs can be observed. Hence, codes referring to MOOC concept (26.34%), learning (21.75%) and development (21.75%) are the ones drawing most of the researchers' attention. In an intermediate position lays the interest in searching about MOOC's technology (12.98%). Codes referring to MOOCs' commercialisation (12.98%), students (6.12%) and challenges (4.58%) are found at the bottom of the list. As for the frequencies in categories, there are no significant differences among them, although they can be nevertheless used for prioritisation purposes. It is worth noting though, that the category getting most of the attention from the scientific community is the one studying the quality of a MOOC's curricular design. In ECO Project, and especially in sMOOC "Step by step", a series of tools have been developed (checklist, peer to peer evaluation, back-office application, satisfaction questionnaire, etc.) precisely to keep control of the courses' quality (Frau-Meigs & Bossu, 2017).

It should be noted that data obtained in sMOOC "Step by step" are not in line with figures compiled from WoS, most probably because it is based on a MOOC model built on different premises. In this sense, the study's results reflect that the "students" category would be placed among the first positions, since one of the European project's main goals implies empowering students so that they can become e-teachers and encourage their participation in social media. In addition, ECO Project stands for different success-measuring criteria than those used in traditional e-learning, and agree with Siemens, Downes, & Cormier (2012) at considering the new role of students in MOOCs as essential. Moreover, they advise potential MOOC participants to do as follows: "If it looks too complicated, don't read it. If it looks boring, move on to the next item […] The learning in the course results […] will be different for each person "(Siemens, Downes, & Cormier, 2012).

Finally, the "professional transference" code noticeably falls to the last place in the data compiled from WoS while, at ECO, it provides the foundation on which tMOOCs are rooted. These tMOOCs pursue a learning transference, fed by prospective contributions directed towards the field of professional and social empowerment, which reaches out beyond the course itself. By encouraging participants in the sMOOC "Step by step" to become future e-teachers, a higher level of interaction and commitment is attained from them. Coincidentally, some aspects which enhance innovation in this type of courses, such as involvement and interactivity, and which are fostered through the constant use of social media, are also to be found in the lower half of the tabled obtained from WoS analysis.

Table 2. Codification and categorization of the most significant content, obtained in documents quoted at least 10 times

CATEGORY	CODE	FREQUENCY
Concept	• Quality of Curricular design (7.26%) • Types of MOOCs (5.73%) • MOOCs and University (3.82%) • Future (3.82%) • Research reviews (3.43%) • Origins (1.14%) • Promises and limitations (1.14%)	26.34%
Learning	• Theories of learning (6.99%) • E-learning (6.99%) • Collaborative learning (2.69%) • Adaptive and self-paced learning (2.69%) • Social learning (1.62%) • Formal and informal learning (0.77%)	21.75%
Development	• Completion rate (4.68%) • Enrolment rate (3.82%) • Assessment, P2P, rubrics (3.43%) • Participation (3.05%) • Flow of information with social media (2.67%) • Active creation and exchange of resources (1.19%) • Communicative model (0.77%) • Critical discourse (0.38%) • Attention to diversity (0.38%) • Workload (0.38%)	21.75%
Technologies	• Emerging technologies (4.19%) • Interactivity (2.68%) • Openness (1.9%) • Connectivity (1.52%) • Mobile technologies (0.77%) • Ubiquity (0.77%) • Accessibility (0.77%) • Usability (0.38%)	12.98%
Commercialisation	• Business Model (2,29%) • Effectiveness (1,9%) • Accreditation and certification (1.15%) • Gratuity (1.14%)	6.48%
Students	• Success in learning (2.3%) • Roles (1.9%) • Autonomy (1.15%) • Level of satisfaction (0.77%)	6.12%
Challenges	• Achievements and innovation (1.9%) • Social transformation for development (1.14%) • Democratisation of education (0.77%) • Professional transference (0.77%)	4.58%

As for the mentioned sMOOC "Step by step" case study, all data obtained through the three strategies mentioned in the previous epigraph were cross-checked. As it was observed, fulfilled expectations and learning results obtained by students were positively correlated to the transfer to professional life of the contents learnt. Therefore, the higher the level of satisfaction with fulfilled expectations and learning, the larger the professional transfer of what had been learned. In addition, the more collaborative tasks the course had, the greater the students' satisfaction in the three previously mentioned aspects was.

4. The 10 T's taxonomy

After studying the records analysed in WoS and classifying them according to new aspects originated in the sMOOC "Step by step", we propose ten dimensions which support tMOOCs in their different modalities, as a prospective model based on empowerment towards professional practice and social empowerment:

1) Authentic tasks. The chosen tasks are "authentic" because they can be applied to real-life situations. We have taken up the contribution by Brown, Collins & Duguid (1989), when they state that these "authentic tasks" are designed to stimulate critical thinking and the self-regulation of cognitive action. They are characterised by the subjects' involvement in real-learning situations and by the richness in assessment, which attends to the achieved goals (Camarero-Cano & Cantillo-Valero, 2016).

Authentic tasks integrate the Relational Factor in pedagogical processes, which has been defined as "intermethodology". This, in turn, is related to a transmedia narrative in which "the interrelation generated between different techniques permits a rich, globalizing practice of diverse activities, which are summative and enlarge the process itself where the analysis-synthesis-reflection-action competence dimensions are brought together" (Marta-Lazo & Gabelas Barroso, 2016: 142).

2) Transfer of learning towards profession. Development in *t*MOOCs is based on potential transfers to the student's professional practice or to their training in skills related to a corporate approach to work (Sánchez-Gordon & Luján-Mora, 2015). Some research works, focused on those MOOCs specialising on pedagogical/education-related topics, conclude that several platforms have specialised on social empowerment (Calvo, Rodríguez, & Fernández, 2016).

Teaching is among the professions in which these courses offer a higher degree of applicability. Lane and Paciorek (2012) claim that it only makes sense for teachers to experience the Web as a huge classroom, where they can develop their own pedagogy and explore new support tools in an open, structured environment.

3) Pedagogical transformation. *t*MOOCs may generate different forms of e-participation, based on collaboration and joint reflection, to "elicit useful proposals to help shape decision-making processes in corporate areas and public politics. These pioneering forms of participation, with groups of common interest, well-grounded and globally connected, have arrived through MOOCs and are going to revolutionise the way we build our society" (Torres & Gago, 2014: 16).

The pedagogical transformation shall be based on "principles of equity, social inclusion, accessibility, autonomy and openness" (Gil-Quintana, 2015: 299). Furthermore, *t*MOOCs could be used to build new forms of academic productivity in the context of empowerment.

4) ICRT. *t*MOOCs imply a "relational factor", integrated in the so-called ICRT (information, communication and relation technologies), whose badge is the establishment of digital humanism, beyond mere technological determinism (Marta-Lazo, Marfil-Carmona & Hergueta-Covacho, 2016). ICTR-based learning pursues a more democratic, inclusive and participative society.

Models based on the Relational Factor promote active learning and encourage participants to "acquire and generate knowledge thanks to active participation, peer-to-peer interaction and conversation" (Hergueta-Covacho, Marta-Lazo, & Gabelas-Barroso, 2016: 51).

*t*MOOCs are based on a relational, active and interactive participation, settled in the use of social media, which are essential for a critical and social pedagogy. The leading role granted to students through social media provides them with the ability for empowerment.

5) Transmediality. Transmission of transmedia content applied to fiction, entertainment and information areas has reached e-learning contexts as well. Currently, several resources are integrated in *t*MOOCs through varied pathways (platforms, applications, social media…) aiming to turn them into multiformat dialogic processes. As Ossorio-Vega (2014) remarks, transmedia narrative "would foster students' participation and would stress the need to reinforce their self-sufficiency and their critical ability, by demanding them to select and choose the way to go" (2014: 36).

cMOOCs and sMOOCs endorse the use of social media for interaction among participants. The first experience was "Social media tools and supporting your professional learning (AUSMT)" (Ostashewski & Reid, 2012), with a MOOC in which students determine their own learning and their journey through the networks (Arnold & al., 2014; Yousef & al., 2015).

*t*MOOCs are pedagogical methods which integrate multiple learning lines. They are not just shaped as an addition of actions, but as a combined transmedia sequence.

6) Open temporality. *t*MOOCs are characterised by open learning in multiple environments and with flexible chronology. As Aguaded (2013: 7) notes, it is a "revolutionary approach as far as the here and now of learning is conceived, since its ubiquity and temporality dissolve to their nearly complete disappearance, while the teacher-learner interactions […] and those among students are transformed".

Methods for interaction may be synchronic or a-synchronic, either permitting simultaneous exchange or by allowing participants to respond whenever it suits them better, though the different media available, such as forum posts on the MOOC's own platform, blogs, social media or any other format within the transmedia sequence.

7) Collaborative teamwork. *t*MOOCs position themselves as a disruptive education alternative and as meeting points for participants, from where access is granted to an accessible, distributed intelligence, thus forming both internal and external relational networks and weaving a construction of knowledge from the resulting "collective intelligence" (Lévy, 2004).

Collaborative learning involves an exchange of knowledge and experiences. Students teach and learn from each other and develop a positive interdependence (Covey, 2008), thus creating CSCL (Computer support for collaborative learning) environments beyond the mere instructional design (Dillenbourg, 2002; Panitz, 1999). Students become active agents in their learning process and contribute to the co-creation of their own knowledge (Soller, 2001).

Collaborative learning is essential in tMOOC contexts because it promotes feedback, motivation and achievement. Some MOOCs are already designed with mechanisms to get the best out of opinion leaders as enhancers of collaborative learning, understanding and sociability through constant interaction (Pei & Shen, 2016).

8) Intercreative talent. One of the axis which should guide tMOOCs is the intercreative talent, a term which conjugates interactivity and creativity (Berners-Lee, 1996). Intercreativity has later been recovered and amplified by Osuna-Acedo & al. (2017), defining it as the individual's ability for the collective co-construction of knowledge in virtual environments through collaboration.

Intercreative talent is necessarily associated to a horizontal learning environment and a bidirectional communicative model, as the one carried out on tMOOCs. Furthermore, it requires an inclusive and accessible education model where there is a place for everyone and where each person feels their participation is important for themselves and for others. As Osuna-Acedo & Camarero-Cano (2016: 123) conclude, the "general results show that sMOOCs in ECO Project were designed and implemented in the light of intercreativity, through both the courses' content and the teaching/learning methodology, which was based on socio-constructivism and connectivism".

tMOOC (Transfer Massive Open Online Course) is a prospective model for courses based on empowerment toward professional practice and social empowerment. Its ten dimensions are: authentic tasks, transfer of learning towards profession, pedagogical transformation, ICRT, transmediality, open temporality, transnationalism, intercreative talent, collaborative teamwork and tolerance.

9) Transnationalism. In their space-time disruptive facet, tMOOCs imply edu-communicational meeting points, open from a territorial point of view, since they overcome boundaries and geographical gaps in the access to higher education.

The transnational component makes participants come together not only according to their spatial location, but also according to their academic and thematic interests. Such interest-based relationships among interacting subjects allow a common ground to be found by people from different countries and cultural backgrounds.

10) Tolerance. The pedagogical design is adapted, through a participative distribution, to the different profiles of interacting subjects, including intermediate leaders or "influencers", which act as driving forces for the rest to follow with a higher tolerance to the frustration generated by not achieving the initial goals. The incentive of achieving badges and interacting with their fellow participants, especially at peer-to-peer assessment, enhances the possibilities of being more tolerant.

Tolerance in tMOOCs means respect for difference and acceptation of ambiguity and error. Interculturality is closely related to tolerance because it implies the coexistence of different cultures, ideas, interests, goals, etc.

5. Discussion and conclusions

In view of the analysis of results, further work on a research line focused on students as leaders in MOOCs is a priority. Therefore, we advocate a more social and transforming outreach for learning through massive courses.

The "Challenges" category in WoS records is a minority one. However, it is there where prospective aspects as goals and innovation (1.9%), social transformation for development (1.14%), democratization of teaching (0.77%) or professional transfer (0.77%) are contained. All these challenges represent just 4.58% of the most significant publications in the mentioned database, while conceptual aspects (26.34%), those related to learning theories and technologies (21.75%), the ones focused on MOOC development (21.75%) or technology-centred instrumental aspects (12.98%) are the most numerous as far as scientific literature of reference related to the subject of study is concerned.

By contrast, the "challenges" are precisely among the central axis at ECO case study, together with all its elements, with a special significance of professional transference and social transformation, towards the completion of the new tMOOC model as a further breakthrough. This involves reformulating their characterising parameters, not only from the tasks standpoint, but also attending to a total of ten traits, which turn them into a new generation based on transforming learning. tMOOCs should be linked to sMOOC as a natural continuity and, in fact, 10% of ECO participants have succeeded in becoming e-teachers through 67 MOOCs, which means that by participating in sMOOC "Step by step" they have been able to carry out their own tMOOCs, conjugating the ten categories established for the model.

tMOOCs work as media and cultural products in the twenty-first century's social media, which are characterised by a self-selective use, adapted to each participant's interest and preferences in the intercreative and intercultural process (Osuna-Acedo & al., 2017). These learning dynamics require no quantitative final results, and they are instead focused on quality control, since this pedagogical model is based on the process and not the obtained results.

As clearly observed in the case study, the professional component is the student's guiding light through the process. From the earliest stages, when students are asked to introduce the group, the identification data they naturally choose are name, surname and profession. On a different note, three driving forces for participation have been detected in the case study: the social importance of generating MOOCs in the future; the need to join forces as e-teachers to design a MOOC in conjunction; and the recognition of MOOCs' professional training.

Transference of knowledge can be achieved from the construction of joint learning in terms of lifelong learning as explained by Delors (1996). The pedagogical transformation produced in a relational, collaborative environment pursues the transfer towards social empowerment development, in a working context which demands constant reinvention.

Moreover, tMOOCs go a step further by promoting active and collaborative learning, not just from a pedagogical perspective, but also as a bid for civic commitment.

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