

Strategies and realities of social media diffusion in the public sector. Evidence from the regional level of government in Spain

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Abstract

This paper aims to respond to two research questions in relation to the development of Web 2.0 tools in the public administration: What are the main strategies put forward for the promotion of social media? What is the level of development in the process of implementation of social media? This paper investigates the diffusion of social media by the Spanish regional level of government: the extent to which public administrations follow some type of policy and/or explicit formalised strategy; years of use and the quantitative dimension of the teams that manage them; the existence of user guides that normalise the criteria for their correct use, the specific social media that administrations employ, among other dimensions. This paper is based on a questionnaire that was responded to by those responsible for the management of social media in the Spanish regional administrations. This research shows that Web 2.0 tools are not yet strategically designed. Conversely, they require further developments to fulfill all their potential. Accordingly, the implementation of social media in government seems to be in its infancy. On the one hand, they are more focused on exploring potential changes in the relations between the public administrations and citizens, than to innovate the functioning of public sector organisations. On the other, the short number of years using this type of tools, the lack of user guides that normalize the criteria for their correct utilization, or the limited teams of people that manage them confirm the preliminary stage of application of social media in public bureaucracies. In sum, this paper offers a relevant analysis, although it is of an exploratory character because of the scarcity of systematic studies about the diffusion of social media within public administrations around the world.

Keywords: public sector, ICTs, e-government, Web 2.0, social media,
comunidades autónomas, regions

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Strategies and realities of social media diffusion in the public sector. Evidence from the regional level of government in Spain

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1. INTRODUCTION

This paper is based on a study on the diffusion of social media in Spanish public administrations. Specifically, it focuses on the strategies developed to promote social media within regional administrations, as well as the actual outcomes of implementation during the short time that they have been in operation. This work seeks to throw light on a relatively recent phenomenon within public administrations, but one that is generating significant interest within the academic, social and political sphere. The data presented here is drawn from the responses to a questionnaire by all those responsible for the management of social media in Spanish regional administrations. Although the study relates to the Spanish case, the results obtained may be generalisable to the process of diffusion of social media within the public sector in other spheres.

Social media have experienced rapid growth in recent years in various contexts. In the Spanish case, these tools have achieved a level of diffusion of more than 77% among Internet users (ONTSI, 2011). At the same time, public sector organisations have started to apply these tools to improve both communication with citizens and internal management (Criado *et al.*, 2011). These tools offer the opportunity to transmit, receive, process and utilise data and information about citizens, as well as public employees. Therefore, social media can facilitate public administrations in their task of strategically managing their functions, and by more proactively incorporating societal demands (Bertot *et al.*, 2012; Chun *et al.*, 2010). In other words, this new technology could facilitate the transformation of traditional bureaucracies into more horizontal and 'perceptive' structures.

This paper focuses on the use of social media at the level of Spanish regional government (also known as 'autonomous communities'). The political power and the responsibilities of Spanish regions has grown significantly in recent decades. The seventeen regional governments manage some of the most important public services including, above all, health and education (as well as their corresponding budgets). Correspondingly, regional governments also contract the majority of Spanish public employees (1.34 million), in comparison with national (0.53 millones) and local governments (0.64 millones) (Spanish government, 2011). Despite the importance of regional governments, we do not yet know if they are leaders in the process of adopting and applying social media in the Spanish public sector.

At this time it is believed that the penetration of social media in the Spanish public sector is still at an initial phase. Simultaneously however, there are very successful cases and applications that are worth analysing. This study therefore aims to respond to two research questions in relation to Spanish regional administrations: (1) What are the main strategies put forward for the promotion of social media? (2) What is the level of development in the process of implementation of social media?

Methodologically, the data in this study is predominantly drawn from a questionnaire given to those responsible for the management of social media in the seventeen Spanish regional administrations. The questionnaire consists of twenty questions designed to obtain a broad perspective over its degree of diffusion, the success factors for its adoption, the strategies for its application, as well as its future development possibilities. Furthermore, collection of primary data has taken place from the official profiles of regional governments in the social media where they have greatest presence (i.e. *Facebook* and *Twitter*), with the aim of gauging their current level of establishment. This analysis is largely descriptive, although it allows us to offer a series of conclusions that are of interest, above all, because of the scarcity of prior empirical studies.

In the next section the theoretical framework of the study will be presented. In the third section an analytical strategy will be offered that will guide the research. The fourth part of the paper provides data on the main strategies for the promotion of social media in the governments under study. The fifth section analyses the level of development of the implementation of social media, including data on the use of those that are most popular in the sphere of public administrations (ie *Facebook* and *Twitter*). Next, section six discusses key aspects of the research, including the findings and the main results. The conclusion closes the study by opening the door to future lines of research related to social media in the public sector.

2. THEORETICAL FRAMEWORK. FROM ELECTRONIC GOVERNMENT TO GOVERNMENT 2.0

The study of social media is recent and multi-disciplinary. It includes areas of computing, business, law, sociology, politics, and public administration, among others. The rapid diffusion of social media in public agencies around the world has promoted the specific interest for this phenomenon from the perspective of public administration. At the same time, the study of social media in the public sector needs to pay close attention to previous processes of technology diffusion in bureaucracies, in order to facilitate the understanding of this new wave of innovation. In fact, some authors suggest the idea of a transition from traditional electronic government (e-government) to government 2.0, as a result of the adoption, use, and diffusion of social media tools in the public sector.

During the last decades, the study of ICT in public administration (or e-government) has become a well-established discipline. A short review of e-government scholars identifies a variety of issues, methodologies, and scopes (Calista y Melistky, 2007; Danziger y Andersen, 2002; Gil-García, 2012; Heeks y Bailur, 2006; Hood & Margetts, 2007; Yildiz, 2007). The study of web portals for electronic services delivery (using rankings and evolutionary models), the exchange of data and information between public administrations (inter-agency collaboration and interoperability), or impact of the digitalization of administrative tasks and activities (both internally in public management areas, and externally addressing the interaction with the citizenry) have concentrated some of the most prominent contributions within this academic field.

Social media have arrived on the public sector modernization agenda, potentially favouring the engagement between citizens and public administrations in a sort of a dialogue. Social media may be defined as "a group of Internet-based applications ideologically and technologically grounded from the creation of Web 2.0, and that leads to the creation and exchange of user-generated content" (Kaplan & Haenlein 2010: 61). Another definition of social media is focused on users: "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection,

and (3) view and traverse their list of connections and those made by others within the system” (Boyd & Ellison, 2007).

Thus, founded on the Web 2.0 philosophy, social media do not only entail interactive elements, but also collaborative attitudes and behaviours in line with the many-to-many approach. Unlike previous e-government, social media may contribute to implement a bidirectional communication between the public sector and the citizenry, and to create virtual communities, among other interactive innovations. To put it in other words, social media platforms may facilitate governments to get into the final stage of e-government evolution, as suggested by Chun et al. (2010). This final station (government 2.0) is characterized as the promotion of shared governance to transform how the government operates, in terms of seamless information flows and collaborative decision-making processes using Web 2.0 technologies (see Table 1).

Table 1. Comparison between traditional electronic government and government 2.0

Comparison between Traditional Electronic Government versus Government 2.0	
Traditional digital government	Social media-based digital government (Government 2.0)
Information provision (information sink) model	Information source (creation) model
Service provision model	Service demand model
Policy enforcement model	Policy making and negotiation model
Agency internal decision making/governance model	Shared governance

Source: adapted from Chun et al. (2010)

Social media cover different Web 2.0 tools such as microblogging (e.g., Twitter), multimedia sharing (e.g., YouTube), virtual worlds (e.g., Second life), mashups and open data applications (e.g., Data.gov), questioning Tools (e.g., Quora), crowdsourcing (e.g., Mechanical Turk.), collaboration tools (e.g., Peer to patent and WikiGovernment), social networking (Facebook), blogs, among others. The analysis of these different strategies and applications in public settings is important to understand how the exchange of information between governments and citizens may significantly transform the way in which the public sphere operates, create new ways of governing, and/or enhance different forms of participation. In other words, social media applications have the potential to transform the mediation process between government actors, institutions, and citizens (Bailey & Singleton, 2010; Bertot et al., 2012; Bonsón et al., 2012; Criado et al, 2011; Dixon, 2010). During the last few years, different public agencies across the world have made advances in this field.

Some studies have suggested that government-citizens interactions may be significantly transformed using social media tools. These instruments are oriented to improve administrative transparency, as the citizens collaborate in the agenda-setting process (Meijer & Thaens, 2010). Grassroots mobilization regarding to public policy is becoming of importance for public agencies' reputation, authority, and impact (Heidinger et al., 2010). Besides, social media facilitate the processes of public services co-production with the citizens, not only by giving opinions or making suggestions, additionally they enhance citizen's collaboration with new contents and services requiring their proactivity (Chun & Warner, 2010).

In sum, using social media in government facilitates the interaction with citizens in an unexplored way so far (Cerrillo Martinez, 2010). They make a difference from traditional mass media as they “relies on user-generated content, which refers to any content that has been created by end users or the general public” (Bertot et al., 2012). At the same time, from the citizens' perspective social media provide a platform for direct participation in decision-making. Thus, Ramon (2010:160) states that "public participation would cease to be intermediated by structures and institutions and would become a direct citizen action". Complementary, social media allows the communication of citizens' views in a simpler, faster, and more direct way, creating a better informed, more

innovative, and more citizen-centric government (Bonsón et al., 2012). In Nam's words citizens can collectively create public information, provide service, and take part in policy processes (Nam, 2012).

Fewer evidences exist about the results of social media in public sector management dimensions. Hrdinová et al. (2010) distinguish, at least, two different social media uses in public administrations. On the one hand, public employees using social media tools on behalf of the public administration to express contents previously agreed with the organization's officials. On the other, public employees using social media for personal purposes related to professional activities. Here, they provide their own personal opinions about professional issues, not expressing the organizational view. Professional interactions using these tools exist outside formal organizations (Cerrillo & Martinez, 2010). These processes highlight the potential of social media as a management tool that also facilitates knowledge networks and information-sharing processes inside public bureaucracies.

3. ANALYTICAL PROPOSAL. FROM STRATEGY TO THE REALITY OF SOCIAL MEDIA IN THE PUBLIC SECTOR

The aim of this paper is to explore the promotion strategies and realities of use of social media by Spanish regional administrations. On the one hand, we seek to understand the strategic vision that orientates the promotion of social media. On the other, we go deeper into the key dimensions linked to the introduction of these types of tools. The analyses is based on two research questions: What are the main strategies put forward for the promotion of social media? What is the level of development in the process of implementation of social media? Both questions focus on the regional level of government in Spain. The following research strategy seeks to provide a response to both these questions.

The universe of study of this research is the seventeen Spanish regional administrations. It is worth emphasising that this level of government were created with the establishment of the 1978 Constitution, and that since then their resources and personnel have expanded to manage an increasingly broad range of decentralised public services, including health, education and social services. In fact this sector now represents more than 50% of personnel, and more than half of public expenditure. For that reason, regional government's need to interact with citizens and for administrative innovation has grown in a significant way in recent years. On the other hand, this group of regional governments has adopted the functional structure of the central government of the Spanish state. That means it is identified within the category of Napoleonic-Mediterranean administrations, with some neo-Weberian innovations (Pollit & Bouckaert, 2004). This structure is not incompatible with a level of use of Information and Communication Technology (ICT) equivalent to other administrations in Europe (Criado, 2009).

This paper seeks to undertake an exploratory analysis of social media within this group of regional governments, by assessing their strategies and the dynamics of their implementation. For this reason we needed to identify the unit responsible for the management of social media within each regional government, as well as those responsible for them. One of the first points that can be drawn from this research is that all the regional governments under study have a unit in which they centralise (albeit in an uneven way) their digital social networking actions across the whole of their administrations, although the reach of their work, their denomination, and their results vary appreciably.

Once these units were identified, we developed a double strategy of information collection on social media in the governments under study: specifically, the analysis of web content and the questionnaire. Regarding the analysis of web content, we sought to reveal the current situation of social media across all of the administrations. In particular we assessed the presence of the main social media (ie *Twitter* and *Facebook*), and revealed basic data regarding each.

In a complementary and more important way, this work is based on the analysis of data from a questionnaire that was developed by the authors. This tool has allowed us to obtain primary data from the opinion of those responsible for the management of social media in the seventeen regional governments under study. Furthermore, through the questionnaire we have been able to obtain information about their personal perceptions about their use, that would not have been possible to achieve in a comparative way through any other type of tool.

The questionnaire is based on prior studies on the use of social media within public administrations. Specifically this questionnaire has sought to confirm some of the aspects collected in the works of Bailey & Singleton (2010) and Hrdinová *et al.* (2010), who focus on the analysis of those responsible for information technology in public administrations, as well as the identification of their main areas of management interest within the public sector. Both studies justify the choice of those responsible for the management of social media as a source of information for this questionnaire. The questionnaire was carried out during the months of March and April 2012. The rate of response was 100%, as the seventeen regional managers responded within the period forecast.

The dimensions analysed in the questionnaire focus on the research questions that have guided this study.

- *Strategies for the promotion of social media.* Within this dimension, this work examines the existence of a strategic orientation towards the use of social media within the governments under study. Specifically, we are interested in understanding the extent to which public administrations follow some type of policy and/or explicit formalised strategy. At the same time we focus on: whether they use social media that are developed externally or internally, if personnel are contracted temporarily or permanently for their management, what is done to reduce the risks linked to their introduction, how their social diffusion is promoted and which department/unit is responsible for their management. All these indicators tell us something about the orientation of social media within public administrations, even though they are still at a basic level of maturity.
- *Realities of the implementation of social media.* Together with the strategic dimension, this research examines a dimension oriented towards the level of introduction of social media in the governments under study. Specifically we consider: both years of use and the quantitative dimension of the teams that manage them, the existence - or lack - of user guides that normalise the criteria for their correct use, and the specific social media that administrations employ. Regarding this latter aspect of analysis, we expect to identify a still incipient degree of introduction, to a great extent because of the novelty of the phenomenon in the public sector.

Consequently this study is based on data on each of the dimensions identified above, as well as a descriptive analysis that allows us to infer some exploratory conclusions. The chapter offers a general approximation of the use and diffusion of social media within Spanish public

administrations, specifically at the regional level of government. Therefore the conclusions of this work need to be treated with caution and, especially, their extrapolation to other spheres.

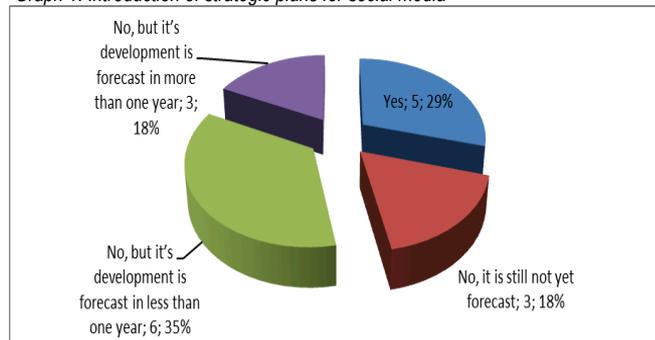
4. STRATEGIES FOR THE PROMOTION OF SOCIAL MEDIA

This section offers the results of the strategies for the promotion of social media within Spanish regional public administrations. Starting from data extracted from the questionnaire, we seek to identify whether the governments analysed have strategic planning documents. Additionally data is presented about the management models that they are adopting, both at the level of the tools of use, the functional areas upon which their management depends, as well as the status of the personnel involved. Next the main measures adopted to avoid risks and the principal ways to promote the use of social media are shown, both within and outside the organisation.

Is there a strategic plan for social media?

Strategic plans are formal documents that summarise the motivations and objectives of organisations in the medium and long term. Applied to the public sector, they can be of great interest because they allow us to correctly orientate the introduction and management of a public policy. Further, their actual existence shows that prior to their introduction there has been a period of analysis and reflection. It is therefore of great interest to know whether in the case of regional governments this work has been done prior to the introduction of social media.

Graph 1. Introduction of strategic plans for social media



Source: Own elaboration

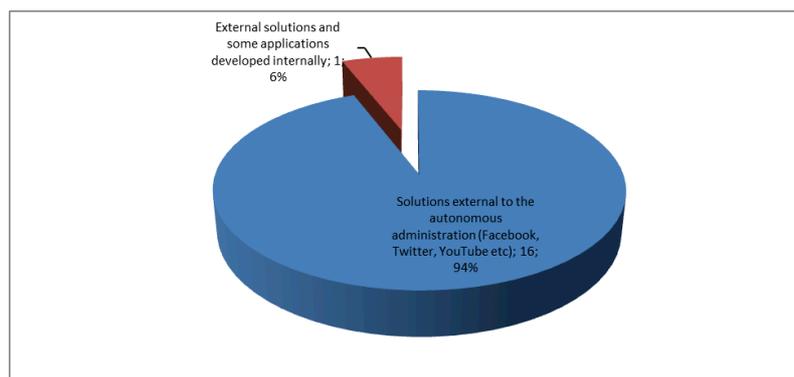
Question 2: Are digital social network initiatives documented in a strategic plan on information technologies and/or communication or in the action plans of those responsible for the technology and/or communication area of their regional government?

Only five regional governments (29 %), the Basque Country, Catalonia, Galicia, and the Autonomous Communities of Madrid and Castilla y León, confirm that they have strategic documents to develop their public policies on social media (see Graph 1). This confirms that we are in a preliminary phase of introduction. However, it is also of great interest to know that 6 of the remaining 12 regional governments (35 %) state they are planning a strategic document of this type in the short term and three (18 %) in the medium term, which confirms that the majority (82 %) are supporting the introduction of social media, albeit in the medium term. Finally, only in the case of three (18 %) regional governments - Aragón, La Rioja and the Balearic Islands - do they not foresee a strategic plan of this type.

Are the social media they use developed internally or externally?

The tools to establish social media are based on technologies linked to Web 2.0. There are a wide variety of tools and solutions on the market, each orientated to meet different demands and specific user profiles, but all of them with one characteristic in common: they are free. On the other hand, there is the possibility that governments develop their own tools, be it through the contracting of specialist companies, or through internal development by public employees. In either of these cases the solutions obtained will be more oriented to the needs of the organisation. Therefore, in this context, those responsible for the introduction of social media must take one of the most important decisions: should they use social media created within or outside the organisation?

Graph 2. Types of social media employed



Source: Own elaboration

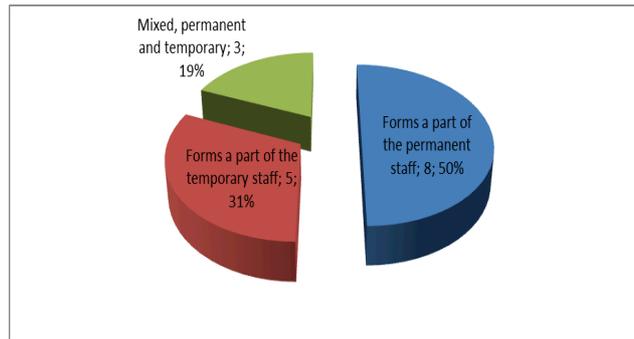
Question 4: Principally, the adoption of social media by regional governments is undertaken through:

All regional governments are using external applications (see Graph 2). Of these, 94%, that is 16 of the 17 administrations, exclusively employ external tools that do not involve any financial cost. Further it is significant that the only region that states that it also uses internal tools - Castilla La Mancha - is also employing some external solutions. Finally, it is worth emphasising that *no* regional government says it has developed custom-developed software with a company. This could be due to the widespread social diffusion and ease of use of the best known social media (above all *Facebook* and *Twitter*), against the high costs and long development periods that are involved in developing their own applications.

Are personnel contracted on a temporary or permanent basis?

In order to understand the strategy in the introduction of any public policy it is essential to know the management model of human resources for which it has been drawn. In the case of the Spanish public sector, there is a broad and complex variety of models, from those providing solid guarantees and most rigid to the most flexible. In this study, and to enable the comparative analysis, we have chosen to focus on understanding whether the team that manages the social media consists of personnel with a permanent and/or temporary link to the administration.

Graph 3. Distribution of temporary and permanent personnel



Source: Own elaboration

Question 6: The management of social media is undertaken by personnel...

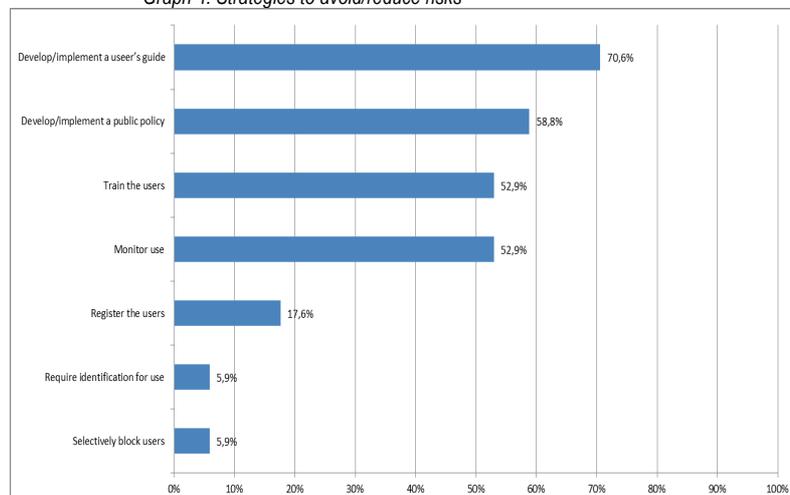
The data show that those responsible for social media in regional governments are in general using personnel who form a part of the permanent staff (see Graph 3). Specifically, 8 cases (50%) manage their social media exclusively with personnel who have this type of link to the administration. In 5 cases (31 %) they are managed with temporary personnel. Finally, only in 3 cases (19 %) are those responsible relying on both temporary and permanent staff.

Despite this data, it is necessary to emphasise that the percentage of personnel who form a part of the permanent staff is proportionally very low in relation to the average of other services delivered by regional governments. This circumstance could be due to: (1) the difficulty of relying on qualified professionals within the same organization in a new sphere, such as that of social media; (2) the fact that the management of social media is being developed by personnel who are close to the presidency of the governments, and therefore, it is more politicised and less contractually stable; (3) the novelty of this new sphere of activity that means that those who are responsible for its management seek to avoid more permanent contracts until they can guarantee more secure consolidation within the organisation.

What do governments do to reduce the risks linked to its introduction?

The introduction of social media may offer positive aspects in the public sector. At the same time, one also has to bear in mind the challenges that arise from introducing new technological tools with no conclusive evidence on their effectiveness in public administrations. For that reason, we seek to understand the ways in which governments try to avoid/reduce potential risks in the introduction of social media.

Graph 4. Strategies to avoid/reduce risks



Source: Own elaboration

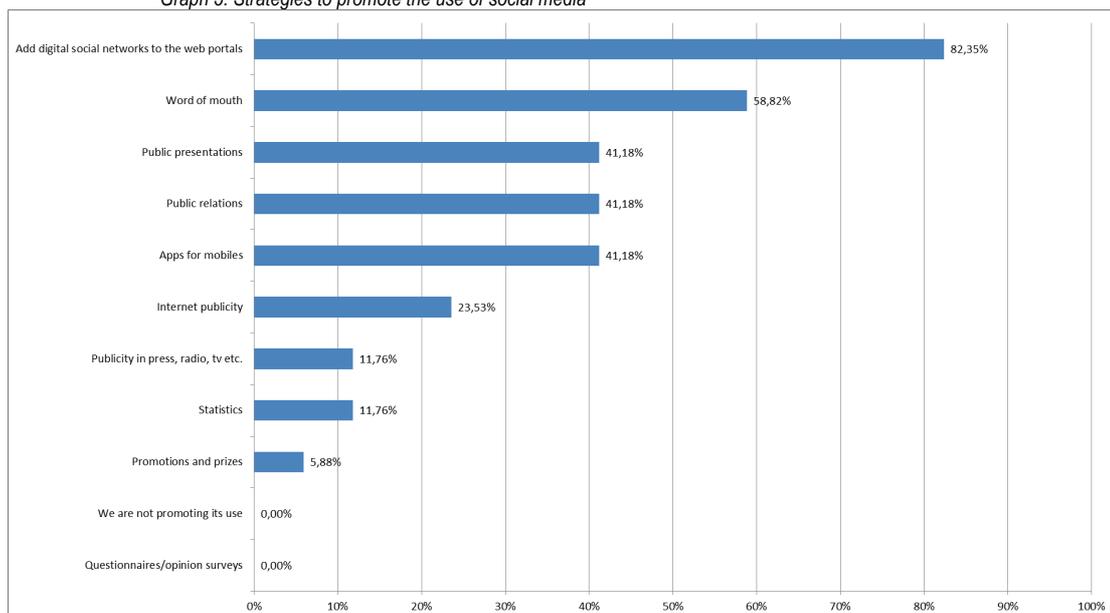
Question 10. What is your regional government doing to reduce the concerns and risks related to the use of social media?

The managers of social media in regional governments are addressing the risks that are involved in employing these tools in various ways (see Graph 4). Predominantly, they are *developing 'user guides'* (70.6 %), *developing public policies* (58.8 %), *monitoring its use* (52.9 %) and *training the users* (52.9 %). It is worth emphasising that the main measures initiated have a proactive character. These have been prioritised above other issues that have a reactive character, such as: *selectively blocking users*, or *requiring their identity or their previous registration*. In this way, managers of social media have opted for actions aimed at establishing awareness about the rules for the effective functioning of these digital tools. Due to its special interest, the specific case of the user guides will now be analysed in the following section, which seeks to understand the level of development of the social media in regional governments.

How is the use of social media promoted?

A key factor in the success or failure of the introduction of social media is whether there is a strategy to socially raise awareness about them. For that reason in this study we have sought to clarify the main measures that those responsible for social media in Spanish regional governments are taking, so that this new service for citizens is effectively diffused.

Graph 5. Strategies to promote the use of social media



Source: Own elaboration

Question 13. What measures has the regional government adopted to promote the use of social media? Identify all those that you believe necessary

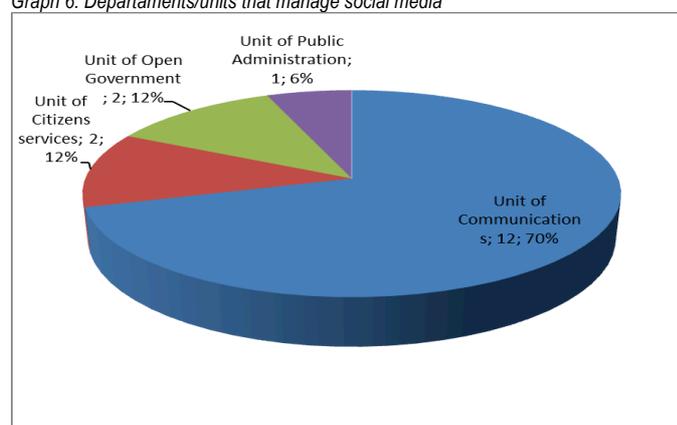
From the point of view of social promotion of the use of social media, those responsible have predominantly opted for 'low cost' communication actions (see Graph 5). The majority of the governments analysed have *added social media to their web page* (82.35 %), that to date continues to be the main means of *online access* to public bodies. In second place, they have *promoted social media by 'word of mouth'* (58.82 %), which is generalised in online marketing campaigns, given that direct conversation among users is one of the main virtues of these types of social tools.

Another point to bear in mind is that all the regional governments have initiated a strategy to promote the use of social media. This does not only imply the high level of importance that managers give to this aspect of their diffusion strategy, but that mere presence in social media is insufficient to deepen its social appropriation.

Which department/unit manages social media?

In order to understand the objectives that managers of regional governments have in introducing social media, it is necessary to correctly identify the functional area of the organisation that is going to manage their development. For that reason, it is important to know which department/unit has been given the responsibility for social media within Spanish regional administrations. The results obtained will help us analyse the strategies of the governments to promote social media.

Graph 6. Departaments/units that manage social media



Source: Own elaboration.

Question 15. Please indicate the regional government to which it pertains, who completes the questionnaire, the organisational unit of which the person forms a part, and the formal title of their post.

It is revealing that in 70% of cases of the management of social media are located within *the departments/units of communication* of regional administrations, and are generally integrated within the presidential department (see Graph 6). Specifically, this occurs in 12 of the 17 administrations. The remainder have opted to locate management of their social media in more specialised units. Two governments - the Basque country and Navarra - have located them in *departments/units of open government*. Catalonia and Cantabria, on the other hand, have opted to manage social media within their *departments/units of citizen care* (12%). Finally La Rioja manages its social media with *the area of public administration* (6%).

The results obtained show that the regional governments have understood that social media can be useful tools in making information more available for their citizens. For that reason, they have predominantly opted to manage them through their communication departments. This focus is therefore not in line with manager's previously mentioned motivations of what they seek to achieve through the introduction of social media, as they seem to put in second place the dimensions of participation and collaboration with citizens, except in the cases of the Basque Country, Navarra, Catalonia and Cantabria.

Therefore, regarding the strategy to promote social media, there is a divergence between the objectives that were initially identified by the regions and the reality that we have found after analysing the data. This incoherence, once again, could be due in part to the short period of time

that has passed since the introduction of social media. Perhaps it may also be the result of the limited reach that these networks still have within the public administrations analysed.

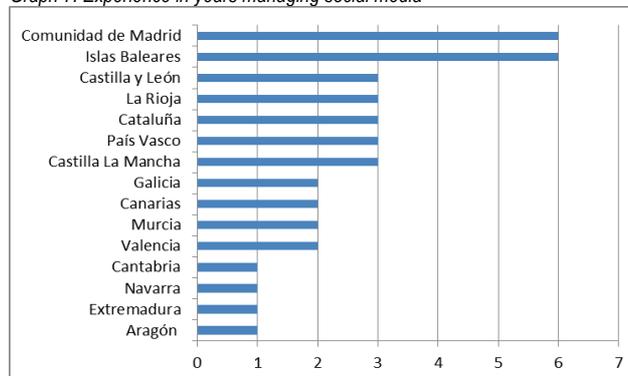
5. REALITIES OF THE USE OF SOCIAL MEDIA

The use of social media is starting to be a daily routine in the functioning of Spanish public administrations. In this section we approximate this reality by analysing data on the degree of experience of the governments working with social media, the quantitative dimension of the teams that manage them, as well as the existence (or not) of user guides that normalise the criteria for their correct use. Furthermore, we identify the leading social media that these organisations have chosen to use that, as we have seen in the previous section, are provided by technological companies that are external to regional governments. Finally, we analyse the only two tools that are used across all the regional governments (*Facebook* and *Twitter*), to collect data about their level of diffusion.

What is regional administration's experience in the use of social media?

From the start of this study we have highlighted the fact that the introduction of social media is still in a very early phase. In order to confirm that, it is sufficient to state that the most widespread social media in the world, *Facebook*, barely existed in February 2004. For that reason, it is of great interest to know the experience of use by the administrations, and to identify a 'first reality' over the diffusion of these types of tools within the Spanish public sector.

Graph 7. Experience in years managing social media



Source: Own elaboration.

Note: Data on Andalucía, Navarra and Asturias do not appear because they were not correctly assigned in the questionnaire.

Question 17. Since when has your organization been working in/with social media on the Internet?

The average experience of Spanish regional governments working with social media is 2.78 years, which corroborates our initial premise that this is a phenomenon that still is in an incipient state of development (see Graph 7). Despite this, there is some heterogeneity among the various governments analysed. Only two regional governments state that they have more than four years experience (the Community of Madrid and the Balearic Islands). On the other hand, there are two cases in which the regional representatives state that their experience is less than one year (Extremadura and Aragón).

These data help us better understand the development of social media in regional administrations. We should point out that there does not necessarily exist a direct relation between the number of years of experience and the level of development of social media in the

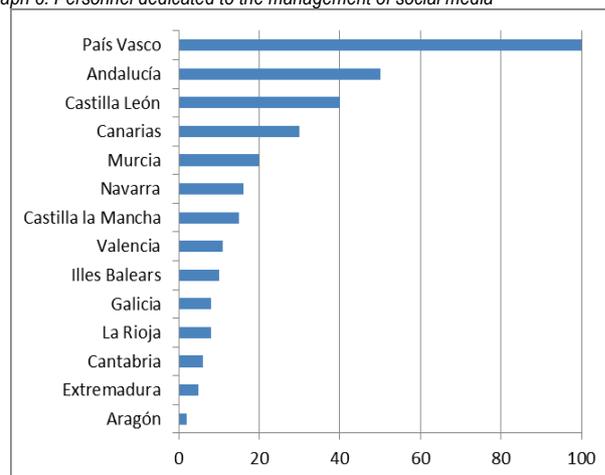
cases analysed. In this context, it is worth noting the previously mentioned Basque administration, that with three years of experience already has one of the most evolved management models of social media.

On the other hand, the process of diffusion of social media within this group of public governments seems to correspond with the classic scheme in the form of an S. What really attracts the attention about the diffusion of social media within the public governments is that the speed of the process of diffusion is still faster than other previous technologies. The process of penetration of web pages within the public sector was especially fast, given that in less than a decade a significant portion of public governments incorporated them into their structures. However the speed of that process of technological diffusion seems even greater in the case of social media.

How many people are involved in the management of social media?

The size of the departments/units that focus on the management of social media can provide an indicator to gauge the real situation of these new services within the Spanish regional governments. One of the questions in the questionnaire that serves as a base to this study relates to the volume of personnel who are dedicated to management related social network tasks within the administrations.

Graph 8. Personnel dedicated to the management of social media



Source: Own elaboration.

Note: Data for Catalonia and for the Community of Madrid do not appear as they were not correctly assigned in the questionnaire.

Question 7. Could you indicate to us how many people are involved in work related to the management of social media in your organization?

As can be seen in Graph 8, the teams related to the management of social media are still relatively small. The largest number (65 %) have less than 25 people involved in their management. These data reveal to us once more that we are at an initial phase in the introduction of these types of technologies within public administrations. This should be interpreted in the context of these regional governments having a total of several thousand employees.

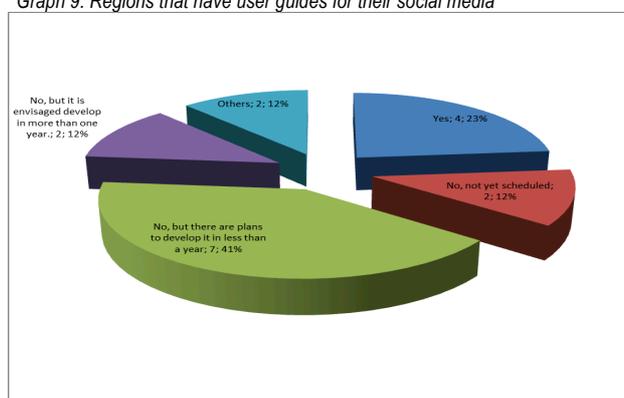
Regarding the cases with more volume of personnel assigned to social media, they do not coincide with regional governments with a greater volume of total personnel. If we look at the total number of employees assigned to social network activities, the governments of the Basque Country (100 employees), Andalucía (50 employees), Castilla y León (40 employees) and the

Canary Islands (30 employees) stand out. Of these, only the case of Andalusia can be identified among the public governments with a higher number of public employees at this level of government. Specifically, it is worth highlighting the case of the Basque administration, whose *Irekoa* project constitutes the most advanced case of *open government* in Spain, and that significantly supports its strategy of introducing the use of social media. This includes the investment on human capital.

Are there normalised criteria for the use of social media?

One of the indicators that shows the degree of maturity of social media within governments relates to the existence of a formalised policy, or a 'normalised document', to define and regulate its use. In recent years the diffusion of social media in some governments has been accompanied by the creation of a user's guide, in which the main aspects that affect its management are included. The existence of this type of document does not determine the level of evolution of social media within the organisation, but it is an indicator of both work and previous reflection on the purpose and orientation of its adoption and use.

Graph 9. Regions that have user guides for their social media



Source: Own elaboration.

Question 3. Please indicate if you have developed some kind of user guide for social media in your administration

As can be seen in Graph 9, five situations have been identified regarding the availability of a digital social network user's guide. Firstly, seven regional governments confirm that, despite not currently having a document of this type, they are planning to develop it in less than a year, while another two plan to develop it in more than a year. In addition to these situations, another two regional governments do not plan to adopt this instrument (another two reported other types of circumstances). On the other hand, four governments have a user's guide for social media: the regional governments of Catalonia, Valencia, Castilla y León, and the Basque Country.

Each user's guide exhibits differential aspects however the four regional governments demonstrate a common intention of those in charge to progressively introduce social media within their administrations. The concept of a user's guide for social media is in constant development due to its novelty within public administrations. The Catalan regional government, without seeking to provide a universal definition, conceptualises its own document in the following way: "The Guide contains the procedure recommended to open email accounts or create accounts and profiles for any department, service or brand in spaces where relationship building and participation take place. The Guide also lists different social networking tools, the diverse uses and objectives of each one, recommendations for an appropriate and fruitful presence on social media, as well as criteria for the communicative style that is most adequate for each tool" (Generalitat de Catalunya, 2012).

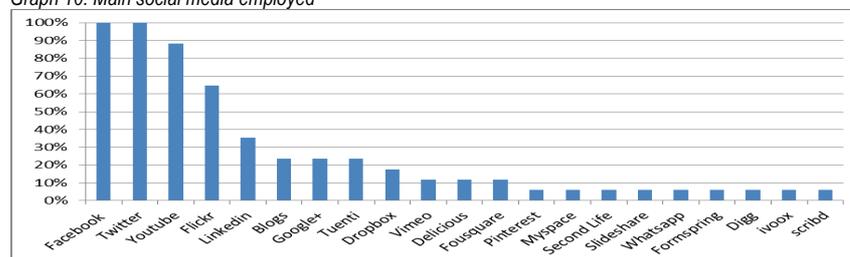
On the other hand, the Basque country has written a user's guide (Basque Government, 2011) that can be considered as a reference point in the field due to its structure and content, as well as forming part of one of the most advanced Spanish projects in electronic government. The User's Guide of the Basque Government was presented in May 2011, which chronologically makes it the second to appear in Spain, following that of the Catalan regional government that was created one year previously. The analysis of the Basque government document can take into account the work by Hrdinová *et al.* (2010) and the eight essential elements for policies in the use of social media in governments (access for public employees, management of accounts, acceptable use, behaviour of public employees, content, security, legal aspects and behaviour of citizens), and therefore confirms its high level of interest. As a result, the User's Guide of the Basque Government deals with the eight aspects in a comprehensive way, and their government has taken a first step towards the formulation of a public policy for social media.

In sum, the User's Guide of the Basque Government represents an example of where a strategy to promote the use of social media within governments should head. An analysis of its content allows us to identify the basic elements to bear in mind. At the same time, the formulation of a strategy or public policy in this sphere requires greater specification, as well as consideration of further dimensions, such as: objectives, actors, criteria of evaluation, budget, etc.

What are the most used social media?

There is a great diversity of social media, and regional administrations have a broad presence in them, although some have drawn particular interest. Firstly, the administrations under study have commonly organised their social media in an exogenous way, that is, they have been developed by private companies that offer their services free of charge to their users. Specifically, Spanish regional administrations have most employed Facebook and Twitter in their relationship with citizens (see Graph 10). Facebook is the leading social network in terms of the number of users across the world, as it allows simple interaction among its users by means of texts, photographs and videos, in an instantaneous and free way. On the other hand Twitter is the digital social network that has experienced the most rapid growth in recent years, numerically situating itself in second place. Twitter is an outstanding "microblogging" tool, as it enables the exchange of information and conversation in real time. Together with these two examples, the level of use of YouTube (88 %) or Flickr (64 %) is also relatively high, as these social media, respectively, specialise in videos and photographs, and they can also enable an increase in communication and interaction between public administrations and citizens.

Graph 10. Main social media employed



Source: Own elaboration.

Question 5. If you use external solutions, please indicate the tool(s) that your organization uses, in general, as well as how you involve citizens, public employees and/or communities of [internal practice ¿¿¿? CHECK]

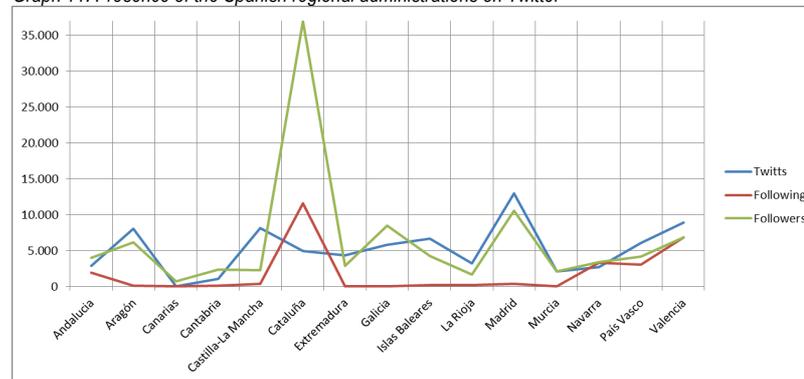
As can be seen in Graph 10 the administrations, taken together, have tried out a broad range of social media, although in some cases in a small way compared to the applications mentioned above. These networks offer very heterogeneous tools, some of which are very specialised, such as: LinkedIn, which is orientated towards the creation of professional and employment links, as well as recruitment processes; Dropbox, which offers a virtual space to store documents and

work cooperatively; and Foursquare, with a more fun orientation, but linked to the use of mobile devices and localisation applications. In sum, the public administrations under analysis have gone to where the users of the social media are most present in Spain (ONTSI, 2011), even though there still is a margin for improvement to take advantage of the full potential of each of them within the public sector.

What is the presence of regional administrations on *Twitter*?

As said, *Twitter* has become one of the digital tools of a social character most used by Spanish regional administrations. One of the main reasons could be the rapid dynamic in the growth of this social media, that has 5.3 million users in Spain. The growing relevance that it is acquiring is an incentive to undertake an approximation of the presence of regional administrations on *Twitter*. For that reason, we have chosen to analyse one profile for each regional government (the numerous profiles developed by the functional areas of the administration, public companies or agencies of a sectorial character are not analysed here). Specifically, data is presented on the institutional profiles that have a generic and transversal character.

Graph 11. Presence of the Spanish regional administrations on *Twitter*



Source: Own elaboration.

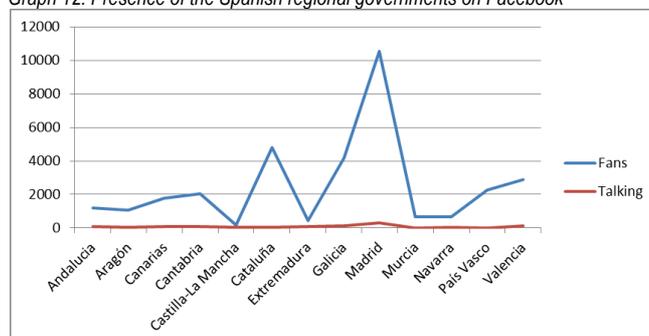
The Spanish regional governments have an average of 6,437 followers of their official *Twitter* profiles (see Graph 11). The distribution of followers varies significantly, spreading from more than 35,000 followers of the Catalan government, to 684 in the case of the Canary Islands. Only two regions, Asturias and Castilla y León, have governments which do not have a general official profile, although they are present in sectorial spheres such as tourism or emergencies.

The data show an evident deficit in the work of 'active listening' that is undertaken by Spanish regions on social media. Only the Catalan, Navarra, Basque Country and Valencian community governments follow several thousand citizens. The other regions barely follow their own followers on *Twitter*. Without a more exhaustive analysis of the network of followers, this could signify that the governments analysed are not taking advantage of the main strength of this social network, that is, the possibility of listening to citizens and analysing the data derived from that listening process. On the other hand, the public governments appear not to have abandoned the unidirectional model of information from up to down, that characterises the low level of interest they have in receiving inputs from their environment.

What is the presence of regional governments on *Facebook*?

All the governments that form a part of the universe of this study are present on *Facebook*, that is the tool most used in Spain, as it has some 16 million active users. This high level of diffusion situates it in a privileged position regarding the potentialities that it can offer public organisations to start their projects on social media. In order to carry out that analysis we have chosen, as in the case of *Twitter*, the official profile of a general character of each regional government, with the objective of characterising their presence on *Facebook*.

Graph 12. Presence of the Spanish regional governments on Facebook



Source: Own elaboration.

The official profiles of the regional governments on *Facebook* have an average of 2,514 followers, slightly less than *Twitter*. In a complementary way, it is worth underlining that the governments in the Balearic Islands, La Rioja, Asturias and Castilla y León do not have an official profile of a general character within this digital social network. Only one government (the Community of Madrid) has more than 10,000 followers. In the same way as in the case of *Twitter*, the variance is even more notable among the different cases under analysis.

Regarding the general quantitative aspect, what is really significant is that the profiles barely have users who communicate about themes that the regional governments propose for them. *Facebook* offers a metric system entitled 'people who are speaking about this', that measures the interactions of the users during the previous seven days. In the moment that the data was collected, there were on average 81 people communicating about themes on each of the analysed profiles, which situates the level of input from citizens at an even more modest level.

Further, the data show that it is insufficient to create a profile on *Facebook* in order to achieve success with followers. Although *Facebook* is the leading tool in Spain, regional administrations are not achieving a high number of followers, and still less managing a high level of interaction with them. In fact, the same seems to happen with both *Twitter* and *Facebook*: there is next to no dialogue between institutions and citizens. In other words, social media are being used in the majority of cases as unidirectional channels of communication. They are not being used as open tools to focus on citizen proposals, nor as mechanisms to promote a distinct model of governance - and less still to transform the processes of adoption of public decisions. In fact, only the Basque country and Navarra allow their users to engage in open dialogue with the government through social media.

6. DISCUSSION

This section offers the main contributions of this paper, taking into account the theoretical framework and the analytical proposal developed in the first pages. The dimensions of this research have aimed at illustrating a double perspective on social media within the governments

under study. One of them has a strategic character. The second relates to the realities derived from their introduction. Specifically, we have sought to respond to two questions related to Spanish regional administrations: What are the main strategies put forward for the promotion of social media? What is the current level of development in the process of implementation of social media? This paper has provided empirical data about these two questions and offered conclusions of an exploratory character about a phenomenon in the phase of construction.

Within the first section of analysis, one of the points confirmed is that the group of governments analysed are in the initial phase of what might be referred to as 'the development of strategies orientated towards the introduction of social media'. At the same time, one sees a clear commitment to its use and diffusion. In effect, we have verified that although many governments exist without a formally approved strategic plan, the majority confirm that they are going to adopt one in the short or medium term. In sum, those responsible for the management of the social media seem conscious of the need to grant this area a strategic dimension within their organisations, although that situation has still not become generalised.

Within this first section of analysis we have also observed other strategic dimensions linked to the commitment to promote social media. On the one hand, we have found evidence that confirms that all the regional governments support the use of digital social tools that are external to the administration. The reasons for this could be related to their high level of social diffusion and the fact that they are free. That is congruent with a context of battles over public expenditure in which technological innovations with reduced economic costs and short development periods are prioritised.

Additionally, we have confirmed that the percentage of temporary personnel dedicated to tasks that are related with the management of social media is proportionally greater than the average of other areas of activity in the public sector. This seems coherent with the fact that not all regional governments have approved strategic plans for the development of their social media. Probably, change in this dimension will go together with the perception of this as a new dimension of activity that requires permanent personnel for its consolidation within the public sector.

On the other hand, the commitment to promoting social media has been confirmed because all regional governments have initiated some kind of a strategy to promote their social use and prevent the risks derived from their introduction. Specifically, these strategies have been orientated to integrate them within official web sites, to diffuse them among citizens, to train the users or establish norms of use.

Also we have discovered that the majority of regional governments have located the management of social media within their departments/units of communication, except in specific cases in which they have created management units that are more specific to open government. This point allows us to infer a still immature development of social media, orientated to boosting the informative dimension of public administrations, more than facilitating citizen participation processes or of collaboration with society. It is important not to forget that the boost in these latter aspects is what will allow us to affirm that the social media generate governments 2.0, and not only an informative model of digital government (Chun *et al.*, 2010).

The second section of analysis has focused on some realities of the development of social media. In the same way as the strategic angle, the dimension of implementation also finds itself in an initial phase. To start, the average experience of Spanish regional governments in the management of social media is 2.78 years. Only a short period of time has passed since this

technological innovation began, which allows us to believe that in the following years we shall witness a significant advance in the use of these tools. On the other hand, the data previously shown demonstrates that the number of years of experience seems not to be the only relevant factor in establishing the evolutionary level of social media within a public administration. However, the evidence presented above suggests that technological experience is usually one of the key factors that helps us understand the level of diffusion of technological innovations (Gil-Garcia, 2012). Consequently, it is necessary to go deeper into this aspect in future research.

The size of the human teams dedicated to the management of social media is still small from a quantitative point of view. There are some cases that are challenging these limitations, however there still remains a significant margin for improvement on this indicator. The presence of *community managers* or specialists in social media is still vary rare in public administrations and has still not raised itself as a key aspect within the management of human capital in the public sector. However it is important not to confuse these types of professional role with simple communicators. These personnel must have profound knowledge of the activities and processes of the organizations in which they work, and at the same time manage the political networks in which their reference organisations are based.

All of the above is reinforced by the still limited presence of user guides for social media in the regional governments under study. User guides represent an alternative indicator of the level of establishment of social media, to the extent that they imply a normalisation of this type of activity. However only a limited number of regional governments have a document of this type (the majority of the rest have planned to approve one in a period of less than one or two years). In addition to style or communicative factors, these documents deal with more substantive dimensions such as, among others, the management of accounts or the type of content permitted.

In order to complete the second part of the analysis we have analysed some primary data on the presence of regional governments in *Facebook* and *Twitter*. The data show an asymmetric and heterogenous adoption of these tools by this group of organisations. Despite being only an approximation of their activity, the evidence shows a deficit in the work of 'active listening' that is carried out by Spanish regional administrations. They use *Twitter* and *Facebook* to transmit information to citizens, in a unidirectional way, without undertaking the work of listening or analysis of their own followers. Therefore the motivations for the use of social media in the public sector has not yet joined the attempt to promote closer relations with citizens (Bonson *et al.*, 2012) or strengthen collaboration to develop public policies (Nam, 2012). In other words, there still remains a long road for the public administrations to achieve the objective of increasing transparency, collaboration and participation with their citizens through the use of this new generation of tools linked to Web 2.0.

7. CONCLUSIONS

This paper has highlighted the fact that the Spanish public sector could be at the start of a road orientated towards the use of social media to improve their relations with citizens, at the same time as they boost innovations in their management. From that starting point, we have investigated the main strategies put forward for the promotion of social media, as well as their level of development in the process of implementation. Through data collected via a questionnaire aimed at those responsible for the management of social media in Spanish regional governments we have offered an exploratory approximation to the two previous dimensions. In a

complementary way, we have presented primary data extracted from profiles in *Twitter* and *Facebook* of the governments analysed, in order to offer conclusions about the degree of current establishment of these tools.

The study of the use of social media by the public sector is a research object of growing interest. It presents similarities with other previous processes of technological diffusion in the public sector (Gil-García, 2012; Heeks and Bailur, 2006; Yildiz, 2007). However, in the case of social media it is still too soon to establish definitive and generalisable conclusions due to the lack of empirical studies. There is no conclusive data to think that the use of social media could be already provoking significant innovations.

At the same time it is worth pointing out that the conclusions derived from the present study are localised to the regional sphere of Spanish government, and in no case seeks to be applicable to the whole of the Spanish public sector. In order to deepen our understanding it would be of interest to develop comparative studies with both other levels of government in Spain, as well as with other regional governments at international level. On the other hand, it would also be important to go deeper into the study of the diffusion of social media by looking at different sectors of public policies (or specific areas of management), above all those in which more innovations are being produced or expected.

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