

# Institutional Communication for young people in "Empty Spain"? The mobile bid in the demographic context of Castilla y León

# ¿Comunicación institucional para jóvenes en la España vaciada? La apuesta móvil en el contexto demográfico de Castilla y León



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#### Abstract:

This research addresses the current state of institutional communication through mobile applications, examining the scope of their implementation and defining their characteristics in a specific socio-demographic context: Castilla y León (Spain). We analysed a total of 258 apps to identify the factors that lead a municipality in this region to have its application to determine the extent to which these resources are used and the prevailing developer type. Ultimately, we want to answer the question of whether young people in Castilla y León

#### Resumen:

Esta investigación aborda el estado actual de la comunicación institucional a través de las aplicaciones móviles, atendiendo al alcance de su implantación y a sus características definitorias en un particular contexto sociodemográfico: el de Castilla y León (España). El análisis de un total de 258 apps se dirige a identificar los factores que propician que un municipio de esta región cuente con una aplicación propia, conocer la cantidad de uso que tienen estos recursos y averiguar cuál es el tipo preeminente de desarrollador. En último término se anhela responder

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(the potential target group of app developers) can take advantage of the resources made available to them or whether those who promote tools under the institutional seal do so to avoid unfavourable comparisons with neighbouring communities in the ecosystem we are addressing.

## Keywords:

Institutional communication; young people; mobile applications; municipalities; *Castilla y León*.

a la pregunta sobre si los jóvenes castellanos y leoneses (público potencial de los creadores de apps) pueden sacar partido a los recursos que se les brindan o si, simplemente, quienes impulsan las herramientas bajo el sello institucional lo hacen para evitar la comparación negativa con municipios cercanos que sí tienen presencia en el ecosistema al que nos aproximamos.

#### Palabras clave:

Comunicación institucional; jóvenes; aplicaciones móviles; ayuntamientos; Castilla y León.

## 1. Introduction

One out of four residents in *Castilla y León* are over 65, according to the data from the census compiled by the National Institute of Statistics in 2022 (INE). Twenty six point one percent of Castilian and Leoneses are over retirement age compared to 19.97% of the average in Spain. Therefore the nine provinces in the region make up an objectively ageing population, where demographic evolution has become a strategic priority. In this respect, the "Agenda for the Population 2010-2020" has dedicated the last decade to actions targeted at social collectives key to achieving greater demographic vitality. Young people, families and emigrants are at the core of this initiative, populations who are seeking a suitable place to live and build their future (Vidal-Domínguez and Fernández-Portela, 2020). Men and women aged 15- 34 (defined as "young people" by the Institute of Youth) play a fundamental role in the regions and autonomies, where cities aim to change the trend in the census in the short-medium term. Consequently, it is essential to create job opportunities and for political leaders and public institutions to connect with specific audiences. This calls for new ways to communicate using specific language codes through strategies adapted to the audience's needs.

Appearances matter in politics (Blakeley, 2016) and the 21st-century voter not only wants to feel heard but also understood. The commitment to communication 2.0 and the mobile phone application ecosystem (hereinafter, apps) is comprehensible, as their use is increasing at a governmental level (Monteserín-Leiva, 2014; Gómez-García et al., 2019; Navarro-Sierra and Quevedo-Redondo, 2020). However, at times the app creators only want to have a presence on the internet, neglecting a fundamental aspect: the content (Quevedo-Redondo et al., 2021).

Political and institutional communication in autonomous communities such as Castilla y León mainly focuses on connecting with older voters through interviews, press conferences or releases from traditional media (press, radio and television). However, recent studies demonstrate that increasingly more municipalities in Castilla y León have apps connected to their cities (Alvarez, 2021). Consequently, apps are now "institutions face of good or bad modernisation or innovation strategies" (De la Hera Conde-Pumpido, 2009:1). They are sometimes connected to the idea of smart cities in Spain (Barceló-Ugarte, 2017). Indeed, the candidates for the presidency of the 2022 council elections in the Castilla y León election year (Alfonso Fernández Mañueco –*P.P.*–, Luis Tudanca –*PSOE*–, Francisco Igea –*Ciudadanos*–, Pablo Fernández –*Podemos*– and Juan García-Gallardo

-*Vox*-) have devoted part of their aggressive election campaign to acknowledging young people and the self-employed in rural areas more. This population is calling for assistance so as not to be forced to leave their villages.

Politicians' election speeches show that they are not oblivious to needed incentives for young people that would prevent an exodus and depopulation. They also highlight the importance of reaching 2248 municipalities in the nine provinces and connecting in a more personalised way adapted to the times.

Therefore, the first critical step would be to create apps providing local councils' service information and conveying popular sentiment about the Area's most pertinent problems and needs. This research is based on this proposal. The following research questions qualify as a basis for determining the extent of the shortcomings in this sense:

- Q1<sub>1</sub>. What territories in Castilla y León had their own apps in the period before the elections (i.e., in 2021)? In those that did, is there a relationship between the number of young people in the municipality's census and the increased use of mobile apps, or are other factors at play?
- QI<sub>2</sub>. Regarding services provided to users by institutional applications, are micro-segmentation criteria applied by age when creating content, or is the trend to follow a sole measure of usefulness for all citizens?

We aim to answer these questions and to lay the groundwork for opening the discussion on whether young people in Castilla y León can make the most of apps. We also seek to determine whether those promoting the tools under an institutional seal are simply doing so to avoid being compared negatively with nearby municipalities not a part of the ecosystem described above.

## 2. Theoretical framework

This research addresses issues as diverse as depopulation in Spain, communication targeted at different age groups, the use of new narratives and the exploitation of so-called "plataformisation" (García et al. 2021), and the study of public communication through new media. We propose an integrative framework to provide the necessary elements to understand the communicative role of institutional apps in the socio-demographic context of Castilla y León.

Firstly, youth plays an indisputable role in the prevailing consumption in today's society, which leads to the interest in studying communication in different social environments. In any case, the lack of academic works on local councils' new institutional communication forms is not representative of this interest. Therefore, it can be argued that this type of research is relatively unexplored, perhaps because institutional communication has a variety of terminology that somewhat complicates its study. In this sense, references with names as diverse as "administrative information, "organisational communication", and "institutional advertising" are found in manuals and scientific articles, among other combinations. Regardless of the terminology used, Núñez-Manzano (2017) exemplifies other authors' sentiments describing the sphere as seeking to bring an organisation closer to its audience, improving audience's perception of it, in order to ensure the organisation's prosperity.

Consequently, its raison d'être is to manage the dialogue between institutions and society and, more specifically, between the institution and its external audience. Recently, communication has shifted its focus from the organisation's objectives to the audience's. In other words, "the axis of gravity of communication management shifts, since it is no longer based on the organisation's needs but individuals attitudes and behaviours" (Costa-Sánchez, Míguez and Túñez-López, 2018, p. 922).

Despite the variety of terms referring to public institutional communication, there is a consensus on its definition as "two-way communicative-relational interaction established between the Government and citizens through messages endowed with heterogeneous meanings (as the object of communication) through interpersonal, collective, mass and telematic media (Campillo-Alhama, 2008, p. 549). The main difference between public and business communication is based on the former's dual purpose. Although both types of institutions (public and private) aim to improve their image in the public eye, governments want to meet the population's needs. In other words, local councils intend to demonstrate that they are at the service of the citizen. Citizens must perceive this (Almansa-Martínez, 2008) so that communication originating from town councils is not "an unimportant issue" but instead is a strategic element to improve the institution's image if managed correctly (Núñez-Manzano, 2017, p. 88). Communication must foster relations with citizens and reinforce their image of institutions. The objective is to reach a consensus on public management and for citizens to feel "informed of all administrative actions and initiatives that may affect their status as administrators" (Campillo-Alhama, 2010, p. 47).

When communication is inefficient, men and women may not value the local council's proper action, which could deteriorate relations with local leaders. Costa (cited in Núñez-Manzano, 2017) states that the absence or lack in public communication entails the risk that "good management is not valued sufficiently because it has not been explained". Even if the municipality offers good products and services; the leaders isolate themselves from citizens. This would be very detrimental, and according to Monteserín-Leiva (2014, "citizen's opinion and involvement are essential to optimising the available resources" (p. 392) so that communication fulfils dual purpose: to be useful for citizens and governments, combining both interlocutors to define themselves.

Nowadays, bi-directionality is more urgent than ever because of institutional and social development, as governments were once "autocratic, isolated and detached from social reality" but are now an entity that "adapts to the transformations happening around it" (Núñez-Manzano, 2017, p. 77). Indeed, we should refer to Patricia Monteserín's study from 2014 on government communication in Castilla y León, which revealed that administrative services were not implemented much, explaining why impersonal and/or inefficient relations between governors and governed are often associated with a long delay in responses.

# 2.1. The shift to mobiles in public communication

Public institutional communication via mobile applications is the most significant aspect of this research. Studying apps is of interest since it is assumed that this tool can build communities of individuals with shared interests or needs (Holmen et al., 2017). Furthermore, boosting these communities' commitment and motivation (Kim, Lin and Sung, 2013). They influence public opinion by contributing to "changing the information and entertainment ecosystem" (Planells de la Maza, 2020, p. 17). Likewise, in terms of providing services to citizens, one of the most significant advantages of an application for managing public communication is its ability to hamper most users' reluctance to engage in dialogue with local councils through social networks, provided that they use platforms responsibly and write content that "contribute to the process" (Suárez-Álvarez, 2021, p. 16).

Another advantage for institutions that have their own app is their ability to minimise problems arising from the unqualified use of council websites that may have become obsolete over time (Muñoz and Hernández, 2022). This is relevant if we are to

consider Castilla y León's ageing population; as Xavier Peytibi points out (2016, p. 35), citizens should have "simple tools" (user-friendly ones for people of any age and with any education) to find out what is happening on the streets, complain when necessary and "help their council to improve things". A proposal such as the ones mentioned above means exploring the degree to which mobile applications are used and consumed by different generations and determining their usefulness and user-friendliness as keys to their success (Fernández-Lores, Marquez and Villaverde, 2021).

## 3. Methodology

This research takes Suárez-Álvarez's (2021) study as a reference on institutional communication through mobile applications in municipalities in Castilla y León to fill the gap the work does not concerning the specific attention app developers pay to the public that tends better to manage the resources from mobile technology and new tools: young people. For this purpose, we have analysed direct data collection on institutional communication apps in Castilla y León. We have reflected on the type of content that most attracts men and women under 35 in the demographic context in the European Union's largest community. The qualitative aspect of the analytical work is of specific interest since "as long as there is only an uncritical reproduction of figures from any source without assessing their methodological quality, the barrier of conventional journalism- and researchwill not have been crossed" (Dader and Fernández, 1993, p. 101). Regarding the data collection process for this article, apps from Ávila, Burgos, León, Palencia, Salamanca, Segovia, Soria, Valladolid and Zamora, whose content is directly connected to institutional communication, were studied. The sample focuses on the apps on the virtual Android Store, Google Play, as it is the prevailing operating system in Spain (Statista, 2022). We combine the name of each municipality with Boolean operators and keywords for this research, such as "informa," "información," "communicación institucional", "ayuntamiento", or consistorio". This process was carried out with all 2248 municipalities in Castilla y León; 302 apps related to 276 of them were detected. Apps were excluded if they had access errors to the content during the sample screening, and it was verified that the error persisted regardless of the Android version. Subsequently, those that did not contain any information or institutional communication and had no activity since 2020 were excluded after each app was reviewed and downloaded. Those whose content did not include updatable information were also omitted (especially apps solely related to tourism). Thus, the final sample (see Annex) comprised 258 mobile apps corresponding to 250 municipalities developed by 48 different developers, created on 13 November, a year before the elections were held in the autonomous region presided over by Alfonso Fernández Mañueco (13 February 2021).

Regarding the template designed for the analysis, the fields were divided into six blocks with different variables. This distribution comes from the models developed by previous investigations specifying the other units of study used (Gómez-García et al., 2019; Quevedo-Redondo et al., 2021; Fernández-Lores et al., 2021):

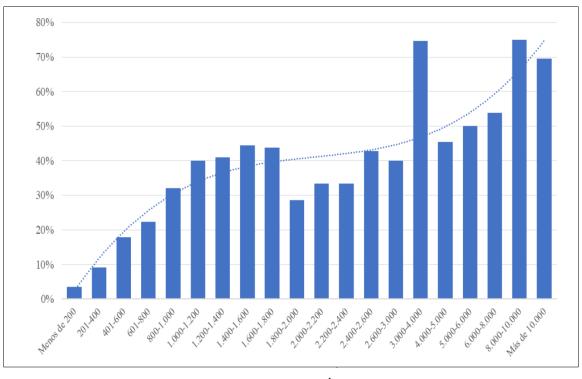
- The 1st Block is dedicated to the app's descriptive data to record its name and the municipality to which it is linked.
- The 2nd Block refers to the features and general characteristics of the municipality and app to specify which of the nine provinces the territory corresponds to and the number of inhabitants registered in it according to the National Institute of Statistics, and the date of the first and last publication/update on the application (information available on Play Store).

- The 3rd Block refers to the quantitative use of the app, including information on the number of downloads and an average number of days between publications.
- The 4th Block refers to the qualitative use of the application, which includes information on the user's average rating on the online store Google Play, the number of user comments on Google Play and the type of comments. This construct is evaluated quantitatively (based on the number of stars the app receives on average) and qualitatively: positive comments (those praising the app's services or highlighting its strengths), negative (those focusing on its limitations or questioning its usefulness) or neutral (those addressing other issues not directly linked to the app). We must also add the variable regarding information flow (one-unidirectional, bidirectional or multi-directional).
- The 5th Block refers to the developers who created the app and their profile (institutional, commercial or independent/private developer)
- The 6th Block was created to identify whether or not content is specifically aimed at young people as their target audience and the primary users of technologies.

There is also a space dedicated to collecting noteworthy qualitative observations that confirmed the absence of electoral contents or were linked to specific political parties (at least directly).

## 4. Results

The first point of interest from the analysis of mobile applications concerns the differentiation between municipalities with an app for institutional communication and those that do not. In this sense, one might believe that the number of inhabitants determines whether a municipality has its own app. Still, the whole range of the population of the Castilian and Leonese municipalities was divided (from 44 inhabitants in the *Riofrio de Riaza* census to 176, 418 in Burgos) into twenty sections that vary according to the number of registered inhabitants, however, this is not always a decisive factor.

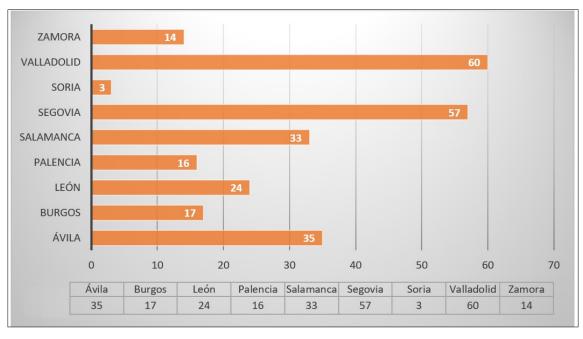


Graph 1. Relationship between population range and percentages of municipalities with an app

Source: adapted from Suárez-Álvarez (2021)

As shown in graph 1, the upward trend in the percentage of municipalities with their own apps does not always correspond to a linear increase in the population. In any case, only 3.5% of the towns with less than 200 inhabitants form a part of the mobile device ecosystem. This rises to 9.09% between 200 and 400 inhabitants and continues to grow steadily to 40% in towns with between 1000 and 1200 inhabitants. The towns with between 3 000 and 4 000 inhabitants had the most significant increase, with 74.7%.

There are also significant geographic differences depending on the classification of province of the app. From an eminently geographic perspective. The number of mobile applications in Avila and Segovia is striking; however, although both are behind Soria in the list of provinces with the lowest number of registered users in the Community (157, 664 in Avila and 153 47 in Segovia). They are the two provinces with the most resources after Valladolid.



Graph II. Distribution of apps by provinces in 2021

## Source: created by the authors

Without losing sight of the geographical factor and including the type of developer and the proximity between locations as a variable for interpreting the results, municipalities with institutional communications tend to be adjacent to municipalities with apps featuring the name of their city or town regardless of the number of men and women in the census.

We can verify the above statement through the map below since only four out of the sixty municipalities in Valladolid with their own app (i.e., 6.7%) are far from others with the same status; 3 out of 57 in Segovia (5.3%) and 4 out of 35 in Avila (11.4%).

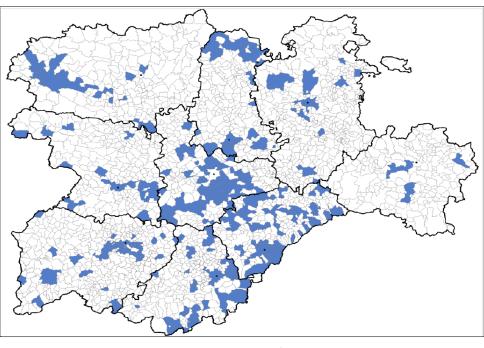


Figure 3. The proximity between municipalities with their own app

Source: adapted from Suárez-Álvarez (2021)

This data shows that the areas close to Segovia, Salamanca Burgos and Valladolid are likely to have many municipalities with apps. The capital does not have its own standardised institutional communication app ("Name of the locality + Informa", as in *Campaspero, Serrada, Mojados, Viloria* or *Villanubla* –among many other cases–); the city is surrounded by territories that do. Regarding the quantitive use of the apps, we can approach them through two complementary approaches: the municipalities' and the citizens' use. Concerning the former, it is worth noting that the most common frequency of content updates (28.3% of the sample) corresponds to two weekly publications. In this scenario, the average number of people registered in municipalities with the most active applications is 6,570. In contrast, the cities that are updated twice a day have an average of 3,614 inhabitants. On average, municipalities with 2000 residents (1,959) publish new information every three days: populations with 1 788 publish weekly; 1,598 publish fortnightly; and monthly publications for 1,126, and 1067 for the previous two months. In short: no municipality with a population of fewer than 1000 people stands out, demonstrating that the larger the town, the greater the interest in using mobile applications (at least quantitatively).

As for the approach to citizens' specific use of apps, this research uses data on download figures cross-checked with population data. The results show that ten of the apps analysed have a higher number of downloads than the number of inhabitants in the census: Riofrío de *Riaza* (44 inhabitants), *Moral de Hornuez* (49), *La Matilla* (78), *Maderuelo* (137), *Cuevas del Valle* (475), *La Parrilla* (479), *Pedro Bernardo* (787), *Montemayor de Pililla* (857), *Fresno el Viejo* (878) and *Candelario* (860). These localities have fewer than 1000 inhabitants. In summer, the populations increase with holidaymakers and the first four towns are part of Segovian municipalities close to Madrid.

"DigiPalserviciosurbanos", "Salamanca 010", "Ponferrada Clic", and "Lineazamora" are apps at the opposite end of the spectrum and are from Palencia, Salamanca, Ponferrada (Leon) and Zamora. However, none of these apps is exclusive to its municipality and has not been created by the usual developers for this type of application in Castilla y León (Bandomovil, REGTSA, Difadi, Pixel and ATMovilidad). The three applications with the worst results (proportionally) have been developed directly by teams from local councils.

From a qualitative perspective related to user satisfaction, in the analysis of 435 ratings for 105 apps, 85.2% received positive opinions, 13.3% were negative, and 1.5% were neutral. Thus, the fact that only four apps received negative opinions suggests that the consumer of institutional content appreciates these resources, which provide them with various informative possibilities. There is information in the sections on transparency and administrative procedures such as those on the app "Ayuntamiento de Muñogalindo" or the section on citizen participation that attracts the user's interest in "Medina 21" and "Santa María del Páramo"- among other cases.

Part of the interest in this analysis focused on unravelling the type of information flow favoured by the apps with a view to citizen participation: unidirectional information flow (from the council to the citizen), bidirectional (two-way communication between the council and citizen) and multidirectional (communication between the council and citizen as well as the opportunity to communicate between users). Contrary to expectations at the beginning of this research, no app allowing for a multidirectional flow was found in the fieldwork. More than 40% only let citizens ask the council questions or make complaints or suggestions. Thus, most apps only aim to publish municipal information (57.4% of the sample), while 40.7% allow residents registered in the municipality to send comments to the council team (mostly incidents). Moreover, five apps out of the total are exclusively for reporting problems to the city council.

The people from Castilla y León prefer the apps that incorporate functions for establishing two-way communication channels among all the options since the average rating for these apps is 2.35 points out of 5 compared to 1.84 for one-way communication. The average number of positive comments is attributed to two-way communication flow. Not surprisingly, after analysing the comments, one concerning the app "Arenas de San Pedro Informa" (developed by Bandomovil) stands out. Although it does not represent a generalised opinion, it does shed light on some of the users' thoughts. The user states, "it is a very good initiative, but I think we should count more on the citizen's voice and open a section for complaints to stop the misuse of the facilities. The environmental issue is notable through its absence and citizen opinion and participation".

In addition to the above, we must highlight examples of apps with the highest quality due to their content or design. "El Espinar Comunica", developed by Bandomovil, which belongs to the Segovian municipality El Espinar, has one of the most comprehensive menus in its category, including information about transport, telephone numbers of interest and 24-

hour pharmacies, as well as a portal for communicating with the town hall. It also includes one of the most diverse and exploited sections, where topics order all the public communications - from "children's activities" to "tourism", "forestry agents", "announcements", "weather warnings", "breakdowns", and "banners", among other topics. The result is optimal and undoubtedly improves the elementary user experience that developers consider before creating the app.

The last part of the results concerns developers. We found 48 different profiles, 40 of which operate a single app. In this sense, Bandomovil is the undisputed leader of institutional communication apps in Castilla y León- and presumably in Spain, since it has more than 900 apps throughout the territory- ahead of REGSTA, Pixel Innovación y Desarrollo, Inbox Mobile, Difadi.com, Diseño y Comunicación SL and ATMovilidad. In this scenario, we can state that most apps- 87.3%- are developed for profit. Only one usual/habitual developer, REGSTA (Collection and Tax Management of the Government of Salamanca), falls into the "institutional" category. Thus, we must point out that only 15 town councils in Castilla y León created apps independently (The Town Council of Palencia, for example, has one with tourist information and another for reporting incidents). At the same time, "Nava del Rey" is the only app created by a specific individual for the municipality of the same name. It is interesting to identify who worked on the project since it was verified that most apps had been created for profit. For this purpose, the most common commercial developers were identified among the five most prolific. As mentioned above, Bandomovil leads the niche market in Castilla y León, as 171 city councils have contracted their services (77% of councils have decided to pay commercial developers). Difadi.com is in second place, having created ten apps (4.4%), followed by Pixel Innovación and ATMovilidad, creators of seven apps each. Twenty-eight different developers developed the remaining 32 apps.

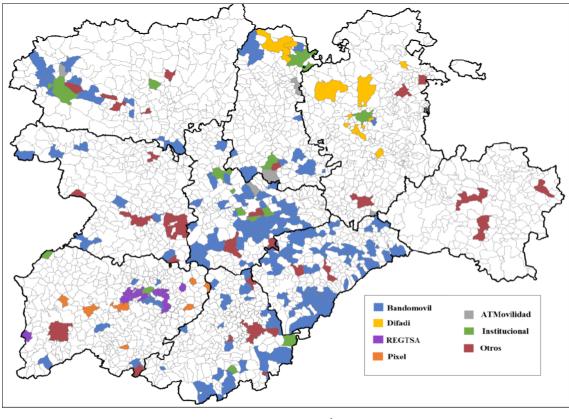


Figure 4. Municipalities with apps segmented by developer and province

Source: adaptation from Suárez-Álvarez (2021)

Lemur Ideas S.L is behind Bandomovil, based in the Segovian town of Coca. The founder of the company is Miguel González Aranda. He highlights on his website that they often cooperate with multiple collaborators and are dedicated to developing apps for communicating in areas as diverse as digital restaurant menus, reservations in shops and capacity control, school parental association communication and appointment requests (among other functions). The company was established on 13 March 2017 with a share capital of 3000 euros, and the date of the start of activity was 1 February 2017. The company's website also includes the rates for city councils, ranging from 80€ annually for city councils with fewer than 500 inhabitants to 680€ for populations over 50,000.

The Bandomovil app has a formal and identical design in the 171 versions related to town councils in the nine provinces under study. The only variation is the municipality's name, which appears in the header next to a small image that is usually

the town's coat of arms. Regarding its features, the main difference between the apps is related to the flow of communication (64.3% of apps only allow councils to communicate with citizens and not the other way around). Likewise, 61 of the applications analysed by Bandomovil include the "Communicate!" section, through which residents can report incidents, make queries and propose ideas to the council. Regarding contents, there is a quantitative contrast in the information available on each app (both the fixed and updatable), with variations suggesting that this issue only depends on the use the councils want or know how to make of the tool.

Difadi.com is a company from Burgos that has a geographic area of activity in the provinces of Palencia and Burgos. As with Bandomovil, the distribution is identical, with a more customisable and visual design (a home page with a full-screen image of the municipality).

Pixel Innovación (a digital marketing agency from Salamanca) has created the apps for institutional communication in its own province-Salamanca-and has the most customisable options among those studied for this work. Its app design is one of the most disparate among the software from the same developer and allows the content to change substantially depending on the proposal.

Finally, ATM is a company from Zaragoza dedicated to developing apps related to tourism promotion, which markets five of the apps studied in this article: two for city councils, one for hotels, one for museums and another for tour operators. Their apps (which have a more significant presence in Valladolid, Leon, Palencia and Burgos) provide more adaptable content than most of those from the big developers. Although all of them are related to tourism, some of them, such as the one for the municipality of Dueñas, have quite a friendly approach, with a visual "incidents" section. Unlike Pixel apps, however, those from this company share a virtually unchanging design- except for the background image on the main screen and the colours of the menus-.

Two facts stand out after comparing the information on the companies. The leading developers of the apps for institutional communication carry out their activity in Castilla y León except for ATM, and they are all SMEs with small teams. In other words, institutional communication for mobile apps is still a minor issue (at least in Castilla y León) since it seems that almost any company could provide this resource with impersonal touches for a small price, as mentioned in the "conclusions and discussion". After all, the prevailing type of developer influences the form more (design) than the content (sort of information provided to the user), so there are practically no sections and/or content targeted at young people as the primary users of technologies.

## 5. Conclusions and discussion

This research aims to verify whether institutional communication via apps has a more significant presence and higher quality in municipalities with more people registered in the census, specifically those with more young people. Castilla y León is a community with a pronounced depopulation problem. It is of interest both socio-demographically and politically, to retain the population under 35 in rural areas. The fieldwork has allowed us to dismiss this idea; however, the most populated municipalities usually have more mobile apps; micro-segmentation is not usually applied by age to contents or exchanges between the councils and residents through a bidirectional flow of communication, which is

a factor that makes users value the tools more highly. In other words, based on the way the research questions were asked at the beginning of this article: a single criterion of usefulness is applied when creating content for citizens, so other factors have a more significant influence than the number of people under 35 registered in the municipality.

Specifically, the geographic location and the proximity between towns with their own app seem to be the fundamental factor that promotes the commitment to the type of resources this work has centred on. Thus, although apps from large towns are the most used by governments (and have the highest number of downloads), we can conclude that those who promote the tool with the institutional seal do so to avoid being compared negatively with nearby towns in this ecosystem. Furthermore, as there is a sole institutional developer (REGSTA) we can conclude that the public's perspective of the usefulness of the apps is hardly exploited. They are also characterised as not being much organised and are often based on residual initiatives. It is essential to add that a high percentage of apps analysed (close to 90%) are developed for profit rather than as a vocation to serve citizens within this communicative, technological and consumer context. We must warn of the risk of using tools managed by third parties to channel communication. We must also propose new studies with declarative methods to gain indepth knowledge of the audience's perceptions.

In line with what Núñez-Manzano (2017, p. 84), assuring that good public communication "is a matter of political will", attempts to gather complaints and suggestions should be valued so governments can take actions to improve their way of governing. More than 30% of apps provide this option, perhaps the most interesting among those identified, as it allows citizens (especially young people) to express themselves. Only time and future research will tell if we are talking about a usefulness that is more concrete in facts than in electoral promises.

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## 9. Annexe

#### Apps analizadas en cada provincia (excluyendo aplicaciones sin uso/actividad)

Segovia: 'Arroyo de Cuéllar Informa', 'Bernuy de Porreros Informa', 'Boceguillas Informa', 'Carbonero el Mayor', 'Castillejo de Mesleón Informa', 'Cerezo de Abajo Informa', 'Coca Informa', 'Cuéllar al día', 'Campo de Cuéllar Informa', 'Duruelo Informa', Escalona del Prado Informa', 'El Espinar Comunica', 'Fuente de Santa Cruz Informa', 'Fuenterrebollo Informa', 'Fuentesaúco de Fuentidueña Informa', 'Fuentidueña Informa', 'Garcillán Informa', 'Grajera Informa', 'Hontanares de Eresma Informa', 'Lastras de Cuellar Informa', 'La Lastrilla Informa', 'Madeurelo Informa', 'Marugán Informa', 'Matabuena Informa', 'La Matilla Informa', 'Moral de Hornuez Informa', 'Mozoncillo Informa', 'Nava de la Asunción Informa', 'Navafría Informa', 'Navas de Riofrío Informa', 'Olombrada Informa', 'Ortigosa del Monte Informa', 'Palazuelos de Eresma Informa', 'Prádena Informa', 'Real Sitio de San Ildefonso Informa', 'Remondo Informa', 'Riaza Informa', 'Riofrío de Riaza Informa', 'Sacramenia Informa', 'Samboal Informa', 'San Cristobal Informa', 'San Martín y Mudrián Informa', 'San Pedro de Gaíllos Informa', 'Sangarcía Informa', 'Santo Tomé del Puerto Informa', 'Sebúlcor Informa', 'Segovia al día', 'Segovia SAC', 'Sepúlveda Informa', 'Torrecaballeros Informa', 'Trescasas Informa', 'Ayuntamiento de Turégano', 'Valseca Informa', 'Valverde del Majano Informa', 'Villaverde de Íscar Informa', 'Zarzuela del Monte Informa'.

Soria: 'ALMAZAN', 'Golmayo', 'Ayuntamiento de Ólvega'.

Burgos: 'Ayuntamiento de Aranda de Duero', 'Arcos de la Llana', 'Briviesca Agenda', 'Burgos al móvil', 'Cardeñajimeno', 'Castrillo del Val Informa', 'Cavia', 'Cogollos Burgos', 'Covarrubias', 'Frías', 'Merindad de Río Ubierna', 'Pancorbo Turismo', 'Saldaña de Burgos', 'Santa Cruz de la Salceda Guía Oficial', 'Tardajos', 'Villadiego'.

Zamora: 'Alcañices en tu mano', 'Ayuntamiento de Benavente', 'Carbajales de Alba Informa', 'Coreses Informa', 'Fuentesaúco Informa', 'Hermisende Informa', 'Manzanal de los Infantes Informa', 'Manzanal del Barco Informa', 'Puebla de Sanabria Informa', 'Ayuntamiento de Toro', 'Villaescusa', 'Villar del Buey Informa', 'Lineazamora'.

Ávila: 'Arenas de San Pedro Informa', 'Ayuntamiento de Arévalo', 'Avila Guia', 'El Barco de Ávila Informa', 'El Barraco Informa', 'El Bohodón Informa', 'Burgohondo Informa', 'Ayuntamiento de Casillas', 'Cebreros Informa', 'Cillán Informa', 'Collado de Contreras Informa', 'Crespos Informa', 'Cuevas del Valle Informa', 'Diego del Carpio Informa', 'Fontiveros Informa', 'Gavilanes Informa', 'Guisando Informa', 'El Hoyo de Pinares Informa', 'Lanzahita Informa', 'Maello Informa', 'Mediana de Voltoya Informa', 'Ayuntamiento de Muñogalindo', 'Nava de Arévalo Informa', 'Navarrevisca', 'Las Navas Digital – Ayto. Las Navas del Marqués', 'Ojos Albos Informa', 'Palacios de Goda Informa', 'Pedro Bernardo Informa', 'Rasueros Informa', 'San Vicente de Arévalo Informa', 'Santa María del Cubillo Informa', 'Santa María del Tiétar Informa', 'Serranillos Informa', 'Solosancho Informa', 'Villarejo del Valle Informa'.

León: 'Arganza Informa', 'Astorga – Turismo, Gastronomía y Eventos', 'Astorga – Soviews', 'Cacabelos Informa', 'Camponaraya Informa', 'Carracedelo Informa', 'Castropodame Informa', 'Cubillos del Sil', 'Molinaseca', 'Ponferrada CLIC', 'Priaranza del Bierzo Informa', 'Santa Colomba de Somoza Informa', 'Santa María del Páramo', 'Soto de la Vega Informa', 'Toral de los Vados Informa', 'Toreno Informa', 'Valderas Informa', 'AytoValderrey', 'Valverde de la Virgen 3.0', 'Ayuntamiento de Villafranca del Bierzo', 'Villafranca del Bierzo Informa', 'Villaquejida Informa', 'Robledo de Torío', 'Villarejo de Órbigo Informa',

Palencia: 'Aguilar Contigo', 'Aguilar Contigo', 'Ampudia Informa', 'Baltanás Informa', 'Barruelo de Santullán Informa', 'Cervera de Pisuerga Informa', 'Dueñas Guía', 'Herrera de Pisuerga', 'Lantadilla Informa', 'Magaz de Pisuerga', 'DigiPalserviciosurbanos', 'Palencia Turismo Oficial', 'Santibañez de la Peña Informa', 'Torquemada Informa', 'Velilla del Río Carrión Informa', 'Villamuriel de Cerrato', 'Villarramiel Informa'.

Salamanca: 'Alba de Tormes', 'Turismo Aldeadávila Arribes', 'Aldeatejada', 'Arapiles-Las Torres Informa', 'Barbadillo', 'Béjar Informa', 'Calvarrasa de Abajo', 'Calzada de Don Diego', 'Candelario', 'Carrascal de Barregas', 'Castellanos Informa', 'Avisa Ciudad Rodrigo', 'Doñinos de Salamanca', 'La Fuente de San Esteban', 'Fuentes de Oñoro', 'Galindo y Perahuy', 'Machacón', 'Macotera', 'Matilla de los Caños del Río', 'Miranda de Azán Informa', 'Pelabravo', 'El Pino de Tormes Informa', 'Póveda de las Cintas', 'Ayuntamiento de Rágama', 'Robleda Informa', 'Salamanca 010', 'San Esteban de la Sierra', 'Santa Marta de Tormes', 'Tamames Informa', 'Terradillos Informa', 'Villagonzalo de Tormes', 'Villavieja de Yeltes', 'Villoria'.

Valladolid: 'Alaejos Informa', 'Alcacarén Informa', 'Aldea de San Miguel Informa', 'Aldeamayor de San Martín Infor', 'Ataquines Imforma', 'Ayuntamiento de Boecillo', 'Cabezón de Pisuerga Informa', 'Campaspero Informa', 'Castrejón de Trabancos Informa', 'Cigales','ATMovilidad', 'Ayuntamiento de La Cistérniga', 'Cogeces del Monte Informa', 'Cogeces del Monte (Valladolid)', 'Fresno el Viejo', 'Fuensaldaña Informa', 'Geria Informa', 'Ayuntamiento de Íscar', 'Ayuntamiento Laguna de Duero', 'Matapozuelos Informa', 'APP Municipal. Ayuntamiento de Medina de Rioseco', 'Medina 21,Línea Ciudadana', 'Megeces Informa', 'Mojados Informa', 'Montemayor de Pililla Informa', 'Mucientes Informa', 'Nava del Rey Informa', 'Nava del Rey', 'Olivares de Duero Informa', 'Olmos de Esgueva Informa', 'La Parrilla Informa', 'La Pedraja de Portillo Informa', 'Portillo Informa', 'Pozal de Gallinas Informa', 'Pozaldez Informa', 'Quintanilla de Onésimo Informa', 'Renedo de Esgueva Informa', 'San Miguel Arroyo Informa', 'San Román de Hornija Informa', 'Santovenia de Pisuerga Informa', 'Sardón de Duero Informa ', 'Serrada Informa', 'Serrada', 'Ayuntamiento de Simancas', 'Tiedra Informa', 'Torrecilla de la Orden Informa', 'Torrelobatón Informa', 'Traspinedo Informa', 'Ayto.Tudela de Duero', 'Valdenebro de los Valles Informa', 'Valdestillas Informa', 'Valoria la Buena Informa', 'Viana de Cega Informa', 'Villabrágima Informa', 'Villalón de Campos Informa', 'Villanubla Informa', 'Villanueva de Duero Informa', 'Villavaguerín informa', 'Villaverde de Medina Informa', 'Villoria Informa', 'Zaratán Informa'.

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