



## Mobile instant messaging services in the local governments: citizens' uses of the WhatsApp services of the Spanish City Councils

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### Abstract

Mobile instant messaging services such as WhatsApp have become increasingly relevant among citizens in recent years. By a quantitative approach based on a survey (n=1,202), our objective is to find out why citizens use WhatsApp and, to be more specific, why they use the WhatsApp service offered by the city council of the municipality of residence where they live. The results show how age, gender, and the respondents' educational level are related to the different uses they make of WhatsApp, especially concerning actions related to participation. Second, the local government WhatsApp service still has an intermediate penetration among citizens, so there is much room for improvement. Finally, the data reveals that age and gender determine the uses of the City Council WhatsApp service. These findings provide interesting data for local governments to improve the relationship with citizens through this mobile communication tool.

Keywords: WhatsApp, mobile instant messaging, local government, social media, mobile communication, political communication.

### Introduction

Smartphones have become the main Internet access device both internationally and in Spain (Fundación Telefónica, 2020). In consequence, the use of these devices for informational purposes has multiplied, especially in the context of political news. In this context, Mobile Instant Messaging (MIM) have become increasingly relevant among citizens in recent years: 3.5 billion people, 66% of the world's population, are using smartphones and more than half of them are social media users (Wan et al., 2019). Applications like WhatsApp or Telegram have changed the way we communicate. With 2 billion users, WhatsApp stands as the third most user-friendly digital platform globally, only behind Facebook (2.9 billion users) and YouTube (2.3 billion users) (We are Social & Hootsuite, 2021). In Spain, 85% of citizens use it daily (IAB Spain, 2021), and about a third of the population already use it as their main source of information (Newman et al., 2021). The flexibility of accessing and sharing information of any sort made mobile communication technology one of the most relevant and fast diffusing channels which can influence citizens' social and political activities and news exposure (Kalogeropoulos, 2021; Treré, 2020; Valenzuela et al., 2021). These platforms provided a forum for citizens to engage in political talks and consume news through a more intimate, closed, and controlled setting compared to other digital platforms (Gil de Zúñiga et al., 2021; Karapanos et al., 2016;

Rossini et al., 2021; Valeriani & Vaccari, 2018) thus enhancing their political knowledge and engagement (Pont-Sorribes et al., 2020).

The ability of mobile instant messaging services to quickly and directly share information while encouraging citizens' civic participation has influenced the way governments relate to citizens, especially those who work in the local area (Lappas et al., 2022; Tejado-Romero et al., 2022; Yang, 2017; Wang et al., 2020). The use of services such as WhatsApp as a channel for interaction between administrations and citizens encourages e-government, increasing the connection with citizens who feel part of everything that happens in their municipality (Faber, 2022; Osah & Pade-Khene, 2016). For this reason, more and more institutions include these tools among their multiple channels of relationship with users, thus enabling a closer communication channel (Aupal & Oleja, 2017; Criado & Villodre, 2021; Marcos-García et al., 2020).

This work poses three research goals. First, to analyse the political uses of WhatsApp by citizens. Second, to know the social acceptance of the WhatsApp service offered by the users' municipality of residence City Council. And third, to observe what citizens use this service for.

## **Literature review**

### **Civic and political implications of WhatsApp**

WhatsApp is a global popular instant messaging platform that revolutionized the way people communicate (Ling & Lai, 2016). It serves as a multimodal, conversational platform, and it is the most popular texting application (Ashiyani & Salehi, 2016; Valenzuela et al., 2021). It became a worldwide infrastructure, as well as an essential source of information and communication with more than 1.2 billion daily active users exchanging almost 60 billion messages per day (Caetano et al., 2018; Gazit & Aharony, 2018; Resende et al., 2016). Nearly everyone with a smartphone uses WhatsApp (i.e. 120 million active users in Brazil and more than 200 million Indian users) to send and share documents, photos, videos, and texts through one-to-one or one-to-many, either through private chats, broadcasts, and/or private/public groups (Vanden Abeele et al., 2018). Mobile communication technology influences political discourse, participation, and engagement levels extending the benefits of other platforms (e.g. Twitter or Facebook) as it provides a flexible environment for discussing politics and public affairs by connecting users virtually anytime-anywhere (Arun, 2019; Campbell & Kwak, 2011). However, people's communication styles on MIM are influenced by cultural factors that make its use different in different countries (Urakami & Lim, 2021).

Caetano et al. (2018) found that there are two types of chat groups on WhatsApp: political and non-political. Political groups usually employ more text messages than multimedia content. Multimedia content is defined as audio, images, videos, and emojis. In this respect, chat groups can be a significant forum for collective discussion on a wide variety of topics and matters (Moura, & Michelson, 2017; Puentes et al., 2020; Sixto-García et al., 2021). They are also useful in terms of fostering relationships and connections between people, in addition to contributing to the overall political discourse and dissent (Pang & Woo, 2020; Tu, 2016). In some chat groups, conversations are direct, serious, and political; yet in many cases, they are casual and

depoliticized. In this regard, Pang and Woo (2020) found evidence that using WhatsApp triggers three types of civic engagement. The first one is frontline engagement, which means that the use of WhatsApp ties with activities that contribute to the prominence of a movement or creating online content that serves the cause of a movement or sharing and participating in conversations that emerge from the content. For example, using WhatsApp to take part in actions such as strikes, demonstrations, rallies, etc. The second engagement type is passive facilitation. These indirect activities support each movement and can include sharing and forwarding messages created by other users. Finally, relational civic engagement means that WhatsApp is used to boost the sense of closeness while shaping users' identification of an established movement.

WhatsApp encourages users to learn more about an issue or event, hence be more involved in the political process (Caetano et al., 2018; Feezell et al., 2016; Moura & Michelson, 2017; Shaul-Cohen & Lev-On, 2020). According to Valeriani and Vaccari (2018), users employ MIM to post political messages and discuss politics. However, they do not reveal their political preferences, but censor themselves to avoid being around extremist political options. Precisely because of the privacy that provides many users have stopped using other instant messaging services to use WhatsApp as a channel for political discussion (Yamamoto et al., 2018). In this regard, research by Gil de Zúñiga, Ardèvol-Abreu and Casero-Ripollés (2021) has shown that WhatsApp provides a more intimate and controlled environment for users to gather and share news almost simultaneously, discuss policies and mobilize other people. However, the political discussion generated in this platform has positive effects on activism, though in conventional participation the effects are smaller. Based on the previous research, the following research questions and hypotheses are proposed:

RQ1: For what purpose do citizens use WhatsApp?

H1: Gender, age, and users' educational level are determining factors in how users employ WhatsApp especially regarding actions related to the participation. However, the level of income will not have any influence.

### **Adoption of WhatsApp by governments**

We are witnessing a new era where mobile technology is empowering citizens and enabling real engagement with government institutions (Hefetz, 2016; Marcos-García et al., 2021; Singh & Sahu, 2008; Wang et al., 2020). The advent of mobile communication technology and instant messaging applications have affected every aspect of our life, including how the government communicates with citizens (Aupal & Oleja, 2017; Yang, 2017). The integration of these new communication channels within the government system led to a global management restructuring movement in governance, starting from delivering efficient, effective, and transparent services to fostering open data and e-democracy (Criado & Villodre, 2021; Manor & Huang, 2022; Yang, 2017; Zheng & Zheng, 2014). MIM became a powerful political tool for the public to demand more transparency and accountability from the government. However, these values do not moderate the impact of perceived usefulness and trust in government on the intention to adopt mobile government services (Mensah et al., 2023). Aupal and Oleja (2017) emphasized that the endorsement of WhatsApp in public institutions and local governments can enhance service delivery and support the public servants' feeling of well-being, especially when their work is well-rated, received, and appreciated by the public. WhatsApp enables people to send feedback to specific public entities and has empowered citizens to launch

collective actions to achieve better services. Though, recent research reveals that citizen empowerment and trust in government do not predict the intention to use mobile government services (Mensah et al., 2023). WhatsApp provides a new and cheap way for institutions and politicians to communicate with citizens and get closer to them through this effective two-way communication channel that eased the information dissemination and engagement (Treré, 2020). It is essential that local governments create dialogic loops with their citizenry and connect digital platforms with offline events to promote citizen political participation (Lappas et al., 2022). These services have been enormously helpful in times of crisis, such as the COVID-19 period, when contact between citizens and public administrations decreased to the digital sphere (Casero-Ripollés, 2020; Chen et al., 2020). In this context, the MIM have offered institutions a way to become the principal sources of information for citizens and gain credibility, which has been decisive in combating the disinformation generated (López-Tárraga, 2020).

Nevertheless, the implementation of MIM and mobile technologies by institutions is still at a very early stage both internationally (Babeiya & Masabo, 2017; Wang et al., 2020) and in Spain (Criado & Rojas-Martín, 2016; López-Tárraga, 2020). Smaller cities still lag in the adoption of digital platforms (Feeney et al., 2020). Despite this, context and closeness is a factor that conditions citizens' online political participation: when people feel they can personally persuade decision-makers, their empowerment and civic engagement increase, something that happens in local governments of small cities due to their proximity to citizens (Faber, 2022). However, Spanish institutions see WhatsApp as an effective and core channel for communication with potential citizens. Its use is integrated into everyday practices of the public institutions due to its significant features (i.e. mobility, speed, multimodality, reliability, etc.) (Marcos-García et al., 2021). However, no studies expressly analyse the citizens' use of the local governments' WhatsApp service. Based on these findings, the following research questions and hypotheses are formulated:

RQ2: What is the social acceptance of the WhatsApp service of the City Council by the citizens?

H2: In general, the social acceptance of the local government WhatsApp service is low.

RQ3: For what purpose do citizens use the WhatsApp service of the City Council?

H3: Gender, age and the educational level of the respondents will be decisive in how they use the local government WhatsApp service. However, the income level does not have an influence.

## Methodology

To answer the Research Questions and check the hypothesis, this research uses a quantitative approach based on the online survey technique, answered by 1,202 citizens residing in Spain. The anonymous online survey was conducted by the MDK Market Research company, specialists in these topics. Respondents were informed at the beginning of the survey and knew their responses had academic purposes. The field survey was developed at the first week of March 2020, before the COVID-19. The sample has been stratified based on four demographic variables: gender, age, educational level, income (Table 1).

Table 1. Distribution of the sample (%)

<b>Gender</b>	Male	45.40
	Female	54.60
<b>Age</b>	18 to 29 years	19.63
	30 to 49 years	45.10
	50 to 64 years	27.62
	65 years or more	7.65
<b>Educational Level</b>	Primary school or less	3.70
	High school	39.00
	University studies	57.30
<b>Income</b>	No income	3.30
	Less or equal to 900€	10.80
	901€ to 1800€	36.10
	1801€ to 3000€	31.60
	3001€ or more	18.20

Source: Made by authors

The questionnaire has been configured in two blocks of questions. The first comprises thirteen statements and seeks to know the respondents' opinion on their use of WhatsApp. The second is formed by eight statements, and the respondents were asked how they use the City Council's WhatsApp service.

The questions were created according to aspects detected in the previous literature on political participation in the digital environment (Boczek & Koppers, 2019; Koc-Michalska & Lilleker, 2017; Gil de Zúñiga et al., 2021; Lappas et al., 2022; Pang & Woo, 2020). In this regard, actions related to three functions are distinguished: information, participation, and engagement.

The information function refers to those actions about information reception (e.g., receive information, request information...). The participatory function includes those activities that require users' direct action (post or share ideas, make a complaint, propose an initiative...). Finally, engagement refers to actions that imply a commitment from users (e.g., join groups, enrol in a service...).

All the answers are dichotomous and therefore, the respondents only had to answer yes or no. To test the hypothesis raised in this research a chi-square test was used, one of the methods most used by the inferential statistical. The data processing was carried out with SPSS software (v.26). This research meets ethical guidelines and adheres to Declaration of Helsinki. However, we did not obtain formal approval from an independent ethics committee because the authors' university did not yet have an ethics committee established before beginning this research and this committee does not issue a posteriori approval. The MDK Market Research company that conducted the online survey obtained informed consent from all participants.

## Results

### Uses of WhatsApp made by citizens

Of the 1202 subjects surveyed, 98.7% (n = 1186) declared that they regularly use the WhatsApp application. This shows how high is the penetration of this mobile instant messaging service among the sample studied. Answering the RQ1, we find three interesting trends regarding the use of WhatsApp. First, the actions "Post or share photos, videos, memes or gifs about current events" (77.07%) and "Post or share ideas about current events" (64.17%) stand out as the users' preferred actions (Table 2). Users comment on the news through this platform while adding multimedia elements to complete the message. Second, participation in actions related to current politics emerges at a certain distance (Table 2). On the one hand, users create or share videos or images, some in a humorous tone, about things that occur at the political level (40.05%) and, on the other, they redistribute messages about politics written by others (30.10%), sometimes as a form of protest, and others to show support. Although in lower percentage users also use WhatsApp to share their political opinion with their contacts (27.99%). In a third stage, users use this messaging platform to attend events promoted through social networks (24.11%) and to obtain information in a broad sense (17.51%) (Table 2).

Table 2. WhatsApp uses at a general level

Function	Action	%	Mean (%)
Information	Receive information about politicians or political parties	18.72	17.51
Information	Change your point of view on political events based on information or interactions made on social media	15.94	
Information	Reconsider your political opinion based on information or interactions made on social media	17.88	
Participation	Publish personal experiences related to the political field	16.78	42.69
Participation	Post or share ideas about current events	64.17	
Participation	Post or share ideas about political events	27.99	
Participation	Post or share photos, videos, memes or gifs about current events	77.07	
Participation	Post or share photos, videos, memes or gifs about political events	40.05	

Participation	Share political comments written by others	30.10	
Engagement	Create groups dedicated to themes or political causes	5.23	11.17
Engagement	Join groups dedicated to political issues or political causes	8.18	
Engagement	Follow or request friendship to the profile of a politician or a political option	7.17	
Engagement	Attend events that have been promoted through social media	24.11	

Source: Made by authors

Thus, the data shows how, in general terms, users mostly use WhatsApp for participatory purposes (mean = 42.69%). Specifically, to publish or share content on current affairs. At a lower stage, they also use this messaging service for informational purposes (mean = 17.51%) or to show their political and / or social commitment (mean = 11.17%).

### **Uses of WhatsApp by gender, age, income and educational level**

Table 3 shows a comparison between gender, age, income, and the respondents' educational level regarding the uses of WhatsApp they made. Chi Square test was carried out to know the independence between those variables and each action. The data obtained partially confirm the H1 raised in this research. Thus, the data show how gender, age and the educational level influence the performance of several actions, especially those related to participation. Conversely, income is unrelated to any of them (Table 3).

Regarding the uses related to information, the data indicate a relationship between gender, age and income on receiving information about candidates or political parties. Thus, men over 65 with monthly income of more than 3,000 euros use WhatsApp the most to carry out this action (Table 3). We also found that age influences reconsidering the political opinion based on information or interactions made on social media (Table 3). Thus, those over 65 years of age are the ones who most frequently admit to having used WhatsApp for this purpose.

Regarding actions related to political participation, Chi-squared test shows that gender is related to actions. Thus, males participate more than females in publishing personal experiences related to the political field (20.41%), posting or sharing ideas about political events (31.46%), sharing political comments written by others (33.90%) and posting or sharing photos, videos, memes or gifs about political events (46.07%). In other words, while both males and females equally share and comment on current affairs, males do it more on current political issues and express opinions on these issues more frequently. In this sense, they are more concerned about political issues on this platform (Table 3).

Table 3. Uses of WhatsApp by gender, age, income and educational level of the respondents (%)

		Gender			Age					Income					Educational Level				
		M	F	p.	18-29	30-49	50-64	65 or >	p.	No income	< or = 900€	901€-1800€	1801€-3000€	>3001€	p.	Basic studies	High school studies	University studies	p.
INFORMATION	Receive information about politicians or political parties	21.16	16.72	.050*	19.66	14.10	21.17	35.63	.000*	6.90	14.00	16.41	24.05	25.45	.007*	13.64	15.84	20.71	.080
	Change your point of view on political events based on information or interactions made on social media	17.42	14.72	.208	17.95	14.29	17.48	14.94	.484	10.34	17.00	17.33	17.18	16.36	.913	18.18	14.32	16.57	.535
	Reconsider your political opinion based on information or interactions made on social media	18.54	17.33	.589	20.51	15.21	17.48	28.74	.013*	17.24	21.00	18.24	18.21	19.39	.970	13.64	16.70	18.64	.543
PARTICIPATION	Publish personal experiences related to the political field	20.41	13.80	.002*	15.38	16.14	16.56	25.29	.172	20.69	16.00	15.50	17.18	24.24	.176	6.82	13.45	19.38	.006*
	Post or share ideas about current events	64.61	63.80	.774	62.82	59.74	70.55	71.26	.006*	79.31	69.00	62.61	65.29	67.88	.328	63.64	65.08	63.76	.898
	Post or share ideas about political events	31.46	25.15	.016*	30.34	24.30	29.14	40.23	.012*	27.50	31.00	27.36	30.24	29.09	.928	15.91	25.16	30.47	.029*
	Post or share photos, videos, memes or gifs about current events	76.59	77.45	.725	80.77	74.77	77.91	78.16	.306	82.76	76.00	75.38	78.01	83.03	.361	84.09	76.57	77.07	.524
	Post or share photos, videos, memes or gifs about political events	46.07	35.12	.000*	44.02	40.07	36.81	41.38	.388	41.38	40.00	38.60	44.67	44.24	.573	34.09	35.14	43.64	.012*
	Share political comments written by others	33.90	26.99	.010*	30.34	26.53	31.90	44.83	.005*	27.59	30.00	26.75	35.40	37.58	.074	25.00	27.77	31.80	.263
ENGAGEMENT	Follow or request friendship to the profile of a politician or a political option	7.68	6.75	.537	8.97	6.86	7.06	4.60	.553	0.00	7.00	7.60	8.59	9.70	.475	4.55	5.42	8.14	.171
	Join groups dedicated to political issues or political causes	10.11	6.60	.028*	7.26	8.72	6.13	14.94	.050*	3.45	9.00	7.60	11.00	10.91	.431	2.27	5.21	10.21	.003*
	Create groups dedicated to themes or political causes	6.18	4.45	.182	5.98	5.38	3.99	6.90	.616	3.45	4.00	5.78	6.87	4.24	.693	2.27	3.90	5.92	.217
	Attend events that have been promoted through social media	23.03	25.00	.431	26.50	23.38	23.62	24.14	.818	20.69	21.00	26.44	29.21	24.24	.469	22.7	21.91	25.44	.383

\*p = &lt;.05

Source: Made by authors



The age of the respondents is also related to the performance of some actions such as posting or sharing ideas about political events (40.23%), posting or sharing ideas about current events (71.26%) or sharing political comments written by others (44.83%). These actions are usually performed by those over 65 (Table 3). Likewise, performing a particular type of actions depend on the educational level of the respondents, being those with university studies who recognize using WhatsApp to carry out them (Table 3). These actions are: publishing personal experiences related to the political field (19.38%), posting or sharing ideas about political events (30.47%), and posting or sharing photos, videos, memes, or gifs about political events (43.64%).

Finally, regarding the engagement function, it should be noted that, the eldest use it the most and openly join groups dedicated to political issues or causes. In this sense, as previously commented, this group is the most likely to join political causes.

### Uses and functions of the service of WhatsApp of the City Council made by citizens

The creation of the municipal WhatsApp services that corporations create to keep citizens informed is increasingly widespread. Answering the RQ2, of the 542 municipalities that comprise the study sample, 200 have active WhatsApp services, which means that 36.90% of the municipalities have this service.

Table 4. Subscription to the service of WhatsApp of the City Council by gender, age, income and educational level of the respondents

	%	p.
<b>GENDER</b>		
Male	21.91	.191
Female	25.75	
<b>AGE</b>		
18 to 29 years	14.53	.001*
30 to 49 years	24.30	
50 to 64 years	29.14	
65 years or more	24.14	
<b>EDUCATIONAL LEVEL</b>		
Primary School or less	43.18	.000*
High School	26.90	
University Studies	19.97	

<b>INCOME</b>		
No income	24.14	.560
Less or equal to 900€	24.00	
901€ to 1800€	24.32	
1801€ to 3000€	24.74	
3001€ or more	18.18	

\*p = <0.05

Source: Made by authors

In general terms, the WhatsApp service offered by the City Council still has low penetration among users since only 23.69% of those surveyed acknowledge having subscribed to this channel. When asked why they did not subscribe, most respondents declared that they did not know that the City Council of the municipality where they resided offered this service.

This encourages municipalities to launch promotional campaigns to spread the creation of the WhatsApp service to achieve a higher number of adhesions. These data confirm the H2 raised in this research.

If we examine the data in detail, while the age and educational level of the respondents relate to the penetration of the municipal WhatsApp service, gender and income do not. In this sense, the group of older people (50 to 64 and 65 and more) most acknowledge having subscribed to this service, while those who do not have studies or have not completed primary studies (Table 4).

If we analyse the uses of the WhatsApp service of the City Council, subscribed citizens generally prefer the information function (mean = 70.11%).

Thus, 91.81% of users use it to receive information about activities developed in their municipality of residence, and 48.40% use it to request information or clarification from the town hall of the municipality where they live (Table 5).

Actions related to the participation to act (mean = 25.71%) are the least used by users (Table 5). Therefore, citizens are less likely to carry out actions that require a greater effort, such as these: filing a complaint about the deterioration of the municipality (34.52%), aspects related to the political field (18.50%), proposing an initiative to improve the municipality (propose an initiative to improve the municipality, 30.60% and to improve the political management, 19.22%).

This attitude indicates vague citizen participation based on clicktivism, an argument in line with the theses presented by authors such as Gladwell (2010) or Morozov (2012).

Table 5. Uses of the service of WhatsApp of the City Council

Function	Action	%	Mean (%)
Information	Receive information about activities carried out in the municipality of residence	91.81	70.11
Information	Request information or clarification from the town hall of the municipality of residence	48.40	
Participation	Make a complaint about aspects related to the deterioration of the municipality of residence	34.52	25.71
Participation	Make a complaint about aspects related to the political management of the municipality of residence	18.50	
Participation	Propose an initiative to improve the municipality of residence	30.60	
Participation	Propose an initiative to improve the political management of the municipality of residence	19.22	
Engagement	Enrol in a service offered by the city council of the municipality of residence	48.40	43.24
Engagement	Posing doubts or questions to the city council of the municipality of residence	38.08	

Source: Made by authors

Finally, the actions related to engagement (Table 5) have a relatively high adherence (mean = 43.24%), particularly when it comes to enrolling in a service offered by the city council of their municipality of residence (48.20%). This action correlates with the high use of this service for informational purposes since citizens receive the information from the City Council through this channel, and almost half of users sign up for some of the services offered. This shows the great potential of this service to generate users' sense of belonging to a local community.

#### **Uses of the service of WhatsApp of the City Council by gender, age, income and educational level of the respondents**

Table 6 shows a comparison in the use of the City Council WhatsApp service depending on gender, age, income, and educational level. Chi-Square test shows a dependency relationship between gender and age

and the use of the WhatsApp service of the City Council regarding all actions related to participation, but not with the rest of the functions (Table 6). In this sense, the H3 raised in this research is partially confirmed, since the respondents' educational level is not decisive for executing any of the uses analyzed.

The uses related to the informative function are the most used by all users, especially concerning receiving information about the activities carried out in the municipality. However, in neither of the two actions related to this function, we found statistically significant differences between groups, with one exception (Table 6). Youngsters between 18 and 29 years old (67.65%) and people of 65 or more (61.90%) are the ones using the WhatsApp service the most to clarify certain aspects that were not sufficiently clear or to request more information.

The most significant differences among groups are in the participatory function. The results of the Chi-Square test recognize a dependency relationship between the actions related to participation and the respondent's gender. In other words, gender does influence when developing these actions. Males are more participative than females, especially when filing a complaint about aspects related to the deterioration of their municipality of residence (42.74% of males and 28.66% of females) and proposing initiatives to improve the municipality (37.61% vs 25.61%). Also, there are differences when it comes to filing a complaint and proposing initiatives related to the municipality's political management. In both cases, the difference between males and females is ten percentage points.

The same goes for age. Data show a dependency relationship between age and actions related to participation (Table 6). Thus, the group of people between 18 to 29 are the ones that most use this WhatsApp service for this purpose. In particular, they use it to file a complaint about aspects related to the deterioration of the municipality (50%) and propose an initiative for improvement (52.94%). These actions are unrelated to the political management of the municipal corporation but refer to the resources and services, regardless of the party in government. In this sense, it is observed that actions related to political management present much lower values for all age groups. In other words, users decline to use the WhatsApp service of the City Council to improve or criticize the political management but to propose specific actions that can improve the lives of residents in the municipality or challenge the deterioration or malfunction of a service.

However, the data show no connection between the income and educational level of the respondents and any actions related to the participation function (Table 6). In this sense, no clear patterns of the use of the municipal WhatsApp service appear in these two sociodemographic variables.

Finally, we also found no relationship between the gender, age, educational level and income of the respondents and the actions related to engagement (Table 6). We observe that men between 18 and 29, with salaries of less than or equal to 900 euros and with basic or intermediate studies, raise the most questions through the municipal WhatsApp service and enrol the most in the services offered through this channel.

Table 6. Uses of the service of WhatsApp of the City Council by gender, age, income and educational level of the respondents (%)

		Gender			Age					Income					Educational Level				
		M	F	p.	18-29	30-49	50-64	65 or >	p.	No income	< or = 900€	901€-1800€	1801€-3000€	>3001€	p.	Basic studies	High school studies	University studies	p.
INFORMATION	Receive information about activities carried out in the municipality of residence	92.31	91.46	.799	91.18	91.60	93.68	85.71	.680	85.71	91.67	92.50	88.89	93.33	.899	84.21	91.94	93.33	.385
	Request information or clarification from the town hall of the municipality of residence	51.28	46.34	.414	67.65	38.17	52.63	61.90	.005*	42.86	62.50	46.25	50.00	43.33	.643	47.40	48.40	47.40	.987
PARTICIPATION	Make a complaint about aspects related to the deterioration of the municipality of residence	42.74	28.66	.014*	50.00	25.95	40.00	38.10	.026*	28.57	41.67	28.75	36.11	36.67	.746	26.32	33.06	35.56	.708
	Make a complaint about aspects related to the political management of the municipality of residence	24.79	14.02	.022*	38.24	12.98	21.05	9.52	.005*	0.00	25.00	15.00	20.83	13.33	.448	10.53	15.32	20.74	.365
	Propose an initiative to improve the municipality of residence	37.61	25.61	.031*	52.94	21.37	35.79	28.57	.002*	14.29	41.67	28.75	26.39	46.67	.167	21.05	28.23	32.59	.511
	Propose an initiative to improve the political management of the municipality of residence	24.79	15.24	.045*	41.18	13.74	21.05	9.52	.002*	14.29	25.00	13.75	18.06	26.67	.507	15.79	12.90	23.70	.077
ENGAGEMENT	Posing doubts or questions to the city council of the municipality of residence	43.59	34.15	.108	52.94	30.53	43.16	38.10	.061	42.86	54.17	35.00	36.11	33.33	.490	42.11	38.71	35.56	.792
	Enrol in a service offered by the city council of the municipality of residence	52.14	45.73	.290	58.82	43.51	54.74	33.33	.104	57.14	70.83	50.00	41.67	53.33	.169	31.58	50.00	48.89	.318

\*p = &lt;.05

Source: Made by authors

## Conclusions and Discussion

The main goal of this research is to know what Spanish citizens use WhatsApp for and why do they use the WhatsApp service offered by the local government where they reside. In addition, this work seeks to know if gender, age, educational level and income of the respondents are determining factors in the uses that citizens make of this platform. The results obtained enable the identification of various relevant contributions.

Regarding citizens' purpose for using WhatsApp (RQ1), the results show that users mostly use it for participatory purposes. It is primarily used to publish or share content related to current news. In line with the results previously obtained (Koc-Michalska & Lilleker, 2017), WhatsApp is used similarly to other social media platforms, such as Twitter and Facebook, in which citizens feel free to comment on the news with other users. Therefore, in line with what is argued by Casero-Ripollés (2018), WhatsApp is becoming a primary source for information and news, in which users receive information about current affairs and share it among contacts. On the other hand, the use of this digital platform to generate dialogic loops with citizens is scarce, contrary to what is recommended to foster participation (Lappas et al., 2022).

The results obtained have enabled us to verify how the gender, age and educational level of the respondents determine how users employ WhatsApp, especially concerning some actions related to the participatory function ( $p = <.05$ ). This way, we observe how men with higher educational levels have the most personal experiences related to the political sphere and those who share the most videos, memes, etc... about such events. It is also relevant how older people are who most frequently send messages through WhatsApp commenting on current events, and men over 65 are who most share political comments made by other users through this application. Likewise, we do not find clear patterns in the use of WhatsApp regarding the search for information and engagement. In this sense, these results have enabled us to partially verify the hypothesis one, initially proposed.

A way to use MIM for political purposes is to subscribe to the WhatsApp service provided by the local government. The obtained data shows that its public acceptance is still incipient since only 25% of those surveyed subscribe to this channel (RQ2). The respondents not registered for the service admitted that it was due to ignorance, which leads us to consider that the City Council did not do a suitable job advertising this service among the residents of their municipality. This confirms the second hypothesis raised in this research.

According to detailed data, the gender and income of the respondents are factors that do not determine the use of this service. In contrast, age and educational level are related ( $p = <.05$ ). Thus, the groups of older people and those with lower education levels make the most use of this service. In line with what was previously stated by other researchers (Gil de Zúñiga et al., 2021), it seems that WhatsApp opens the way to a possible reduction of the digital divide.

Regarding the purpose of using the WhatsApp service of the City Council (RQ3), in general terms, the informative function prevails. Users employ it to learn what happens in their municipality. Therefore, it is a valuable mechanism to acquire information related to the local government. In line with this finding is the fact that actions related to engagement, such as, to enrol in a service offered by the municipality, have high citizen adherence (Wang et al., 2020).

Thus, citizens receive information from the City Council on this channel, while almost half of the users sign up for the services offered. Therefore, it seems that the City Council WhatsApp service is efficient in connecting with citizens and involving them in the closest political sphere (Yang, 2017). Also, this tool encourages transparency and e-government (Aupal & Oleja, 2017).

If we analyse the data in detail, as the Chi-Square test shows, the gender and age of the respondents relate to the actions whose function is participation. Thus, young men most use the local government WhatsApp channel to file a complaint about deteriorated aspects or the local political management conducted and to propose improvement initiatives in both directions. It is striking how young people, a group usually more disconnected from politics, are the ones who most use the service to participate in it, albeit passively (Gladwell, 2010; Morozov, 2012). In contrast, the results of the Chi-Square test do not show any connection between the education level and income of the respondents and what they use the local government WhatsApp service for. Therefore, the data enable us to partially confirm hypothesis 3.

This study endeavours to expand our understanding of citizens' uses and functions of WhatsApp. In particular, it analyses the WhatsApp service offered by City Councils considering gender, age, education level and income of users. However, although the sample is large enough, it would be interesting to add a comparative approach to contrast the results obtained in this research with those obtained in other countries. Despite the limitations, this study has made it possible to observe that there is a dependency relationship between actions related to participation in WhatsApp and the age, gender and educational level of the respondents. In addition, it is the first investigation that analyses the citizens' use of the WhatsApp service offered by the City Council, which provides interesting data for local governments to improve the management of this communication tool with great potential for managing local politics.

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