

What do we know about E-participation at the Local Level?

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Abstract. This paper aims to examine the phenomenon of e-participation at the local level. This study addresses the following research question: What is currently known about the transition from participation to e-participation at the local level? This paper employs a systematic literature review to understand the current state of art about e-participation at the local level by identifying and categorizing the relevant structures, assessing the prevailing barriers, recognizing the challenges, and analyzing the potential benefits of e-participation at the local level. The purpose of this research is to provide insight into the existing knowledge base on the transition from traditional forms of participation to e-participation at the local level. The findings indicate that while e-participation presents an opportunity to improve democratic engagement and inclusivity, it also faces substantial challenges, including digital devices, institutional resistance, and the necessity for solid technological infrastructure. These findings have implications for both practice and academic discourse. From a practical perspective, the findings suggest that local governments need to invest in technology and digital literacy programs to ensure effective e-participation. From an academic viewpoint, the study contributes to the existing literature by providing a comprehensive understanding of the dynamics of e-participation and its implications for local governance.

Keywords. Participation, e-participation, local level

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1. Introduction

The idea for this paper starts with the classical article written by Sherry Arnstein (Arnstein, 2002), a valuable contribution to the literature about participation in the public sphere that investigates the changes from participation to e-participation at the local level. In the last century, democracy has altered most countries' reality (Bobbio, 1992). With this, public participation became a vital tool to understand what citizens want from a representative government (Pateman, 1992). Still, without a legally binding or mandatory observance of government decisions, some contributions aren't considered in the decision-making process and do not translate into concrete actions (Dagnino, 2004). Local instances sometimes don't have the possibilities and capabilities to focus on public policies at different levels of government (da Fonseca, 2019). All of these are influenced by the technological changes of the last century (Castells, 2005), and the participation process has also changed. Initially, the participation process was sometimes in-person and sometimes online. This changed with the COVID-19 pandemic because the participation process that was in person needs to change to digital (Criado et al., 2020).

Focusing on participation practices (Bourdieu, 2011), this paper aims to understand the current state of art about e-participation at the local level. To this end, a literature review was conducted to identify the categories, structures, barriers, challenges, and benefits of e-participation at the local level. The paper wants to answer the following question: What do we know about the transition from participation to e-participation at the local level?

This study is based on the assumption that cities have choices (Savitch & Kantor, 2004) and that localism has a particular potential to build movements in local politics in practice (Clarke & Cochrane, 2013). For years, the

mostly interesting practices of participation started and became strong at the local level or in the municipalities, an example of participatory budgeting (Dagnino, 2002; Fedozzi & Martins, 2015; Lüchmann, 2014). Participation is a part of the democratic system and a way to involve citizens in the public sphere. Understanding where we are situated in participation literature is fundamental to attempting to impact society. The following theory and literature review aim to advance our comprehension of the elements that potentialized public participation.

This contributes to the existing literature and, as a consequence, to the development of new research by providing elements that contribute to an understanding of the actual stages of the transition from participation to e-participation. The remainder of this paper is structured as follows: section 2 presents a brief theoretical foundation, section 3 describes the methodological procedures, section 4 presents the participation categories identified in the studies, section 5 discusses the main findings from the research analyzed and, finally, section 6 presents the final remarks.

2. Theoretical Background

2.1 Democracy

To discuss participation, it is first necessary to define democracy. Given the infinite number of democratic systems in existence, it is evident that not all of them provide adequate space for effective citizen participation. In this paper, we will make a distinction between two forms of democracy: on the one hand, we will examine dominant forms of democracy, and on the other, we will consider alternative, counter-hegemonic systems. (Miguel; Vitullo, 2021a).

For Ellen Wood, the hegemonic conception - also known as liberal or bourgeois - defends a merely representative democratic system, where the people's form of participation is only through periodic voting to choose representatives who will fulfil their mandate for a certain period, without, in most cases, existing direct dialogue with the voting people (Wood, 2011). On the other hand, counter-hegemonic democracy is based on the conception of the democratic system adopted in ancient Greece, where there was no political state structure distinct from the people, considering citizen participation as a central fact (Wood, 2011).

According to Wood (2011), the concept of democracy has historically been inserted into the field of social tensions as political strategies of the dominant classes aiming to perpetuate a model of representative, hegemonic democracy adopted by most so-called democratic countries. From this point of view, democracy is much more a method of choosing representatives than a system of representing the people's will.

It is important to understand that the dominant currents of democracies have different origins and, therefore, founding conceptions that lead to divergent democratic practices (Bourdieu, 2007). According to Wood (2011), one of the central criteria of democracy is the balance of power between rich and poor, and what would be intrinsic is the condition of being a citizen, not each one's economic condition. In a capitalist democracy, the distinction between civic status and class position functions bidirectionally: socioeconomic status does not dictate the right to citizenship, embodying the democratic aspect of capitalist democracy. Still, the capitalist's ability to appropriate workers' surplus labour remains unaffected by privileged legal or civil status. Consequently, civil equality does not directly influence or substantially alter class inequality, thereby constraining democracy within capitalism. Class relations between capital and labour persist despite legal equality and universal suffrage (Boron, 2001; Wood, 2011).

Therefore, although there is civil equality where everyone is seen as a rightful citizen, regardless of socioeconomic position, this is superimposed in the capitalist context. Democracy becomes limited since civil equality is not capable of modifying the logic of exploitation and class inequality. The concept of democracy becomes accepted by the elite classes to the extent that it is useful to them and allows them to maintain power in their hands. This can be analyzed according to the "generalized defamation of democracy by the dominant classes" (Wood, 2011, p.194), allowing it to be subjected to a transformation that makes it "possible for its enemies to yesterday to hug her" (Wood, 2011). This "transformation" pointed out by Wood can be understood in part as the minimization of mass participation in political life.

In this original sense, democracy was understood to refer to government by the demos, or the "people," with the additional double meaning of civil status and social category. In "representative democracy," the principle of government by the people remained the primary criterion for defining democracy, even though government was filtered through representation controlled by the oligarchy, and the people were stripped of their social content. In the following century, the concept of democracy would become increasingly divorced from its ancient and literal meaning (Wood, 2011, p. 194).

Participation theories are based on the concept of democracy within our system. They aim to broaden the possibilities of generating active citizenship and, consequently, change the system's structures (Pateman, 1992a). Within the prevailing paradigm, wherein representation is the dominant model, participation is either absent or

perceived as transparency and social control (Lavalle; Vera, 2011). In the counter-hegemonic current, participation is the primary focus, with social control and transparency serving as conditions that facilitate participation (Miguel; Vitullo, 2021b).

2.2 Theories and the concept of participation

Participation, in its etymological Latin derivation, is derived from the term "participatio", meaning to take part in the action. The term's etymological origin elucidates the necessity of access to act and collaborate in decision-making. Many authors have examined this issue, offering perspectives on the significance of participation, underscoring its human necessity, the pedagogical and constructive role of participation, and proposing strategies for the development of greater participation (Arnstein, 2002; Barber, 2003; Bobbio, 1992; Bordenave, 1983; Pateman, 1992a).

Bordenave (1983, p. 10) writes that participation is a fundamental human need and, thus, a human right. The author maintains that participation is justified in and of itself, independent of its outcomes: "Participation facilitates the growth of the population's critical awareness, strengthens their power of demand, and prepares them to acquire more power in society" (Bordenave, 1983, p. 12), a process that leads to the people's appropriation of development. Furthermore, the author posits that participation can be learned, like Pateman (1992). Participation does not have a ready-made formula; rather, it can be provoked and organized in a manner that does not result in manipulation. Participation is facilitated by organization and creating spaces and networks that facilitate communication, always respecting individual differences in how people participate (Arnstein, 2002; Barber, 2003). The author posits that participation can be understood as having two distinct bases. The first is an effective base, which is a sense of enjoyment derived from engaging with others in collective endeavours. The second is an instrumental base, which can be understood as a perception of efficiency and effectiveness gained from working with others rather than alone (Bordenave, 1983).

In a similar vein, the author posits that citizens can engage in "micro-participation" and "macro-participation" (Bordenave, 1983, p. 21). The former is defined as natural participation, which encompasses involvement in family, school, community, and association activities. The latter is characterized by a conscious intention to utilize participation as a means of influencing social, economic, and political struggles within one's immediate context. Consequently, social participation (or participation at a macro level) is defined as the process by which different social groups participate in the production, management, and enjoyment of the goods of a historically determined society. Nevertheless, both forms of participation are mutually reinforcing, as the former, in addition to achieving immediate objectives, can also serve as an opportunity for the learning process and the primary pathway to the full exercise of citizenship (Bordenave, 1983, p. 57).

Furthermore, as a theoretical contribution, Bordenave characterizes participation in levels based on two key questions: "How much control do the members have over decisions? How relevant are the decisions that they can participate in?" (1983, p. 30). The levels of participation range from the lowest, information, to the highest, self-management. At the lower end of the spectrum, the decision-making power of the leaders is greatest, as they are the sole decision-makers, and citizens are merely informed. At the next level, optional consultation, the administration may, if it chooses, consult the population on a given subject. This precedes compulsory consultation, in which the government must consult the public on certain issues. The next level, drafting/recommending, is where the public can propose and recommend actions that the administration can accept or reject. Co-management assumes a slightly greater proportion, as administration is shared through shared or collegiate decision-making. Delegation, on the other hand, is when participation is delegated to citizens in certain areas in which they have the autonomy to decide. Finally, the final level is self-management, in which the distinction between administration and citizenship is diminished, and the groups themselves determine their objectives, choose the means of execution, and establish controls without the interference of external authorities (Bordenave, 1983, p. 30–33).

In her seminal work, *Participation and Democratic Theory* (1992), Carole Pateman delineates three distinct forms of participation: Pseudo-participation occurs when there is only consultation on a matter by the authorities, and participation is limited to endorsing a decision that has already been made. Partial participation is a situation in which many take part in the process, but only one party decides. On the other hand, full participation is a situation in which each group of individuals has equal influence on the final decision (Pateman, 1992a). Two points in Pateman's theory of participation are noteworthy. The first emphasizes the educational function of participation, while the second underscores the pivotal role of participation in industrial settings for workers. In these two points, the author is referring to a theory of participatory democracy (Pateman, 1992a).

Sherry Arnstein observes a paucity of in-depth analyses of the content of the controversial slogans currently used, such as "citizen participation" or "maximum possible participation," even in academic circles. The author's solution to the problem primarily imposes the integration of empowerment within the participatory framework of the aforementioned groups, which she identifies as the group of the have-nots: blacks, Mexican immigrants, Puerto Ricans, Indians, Eskimos, and poor whites. These groups' conception of participation as a means of redistributing

power is a central aspect of her argument (Arnstein, 2002).

The term participation is often used as a synonym for citizen power. In essence, participation is the redistribution of political and economic power, allowing those currently excluded to become actively included in future decision-making processes. It is the strategy through which those without a voice are integrated into the decision-making process. In essence, participation is how those without a voice can promote significant social reforms that allow them to share in the benefits of the surrounding society (Arnstein, 2002).

Among Brazilian authors, the contributions of Dallari, who made significant efforts to advance this discussion during the Brazilian military dictatorship, are worth noting. In his 1984 publication, "What is Political Participation?" the jurist posits that decision-making is a necessity for society and that a political system is only democratic when decisions are taken freely and the will of the majority is respected. According to the jurist, if "everyone recognizes this need and positively assumes their responsibility," conflicts will be overcome more fairly and in a manner that aligns with common needs (Dallari, 1984, p. 25). The theoretical framework is thus based on the acquisition of this right by the population, beginning with the Universal Declaration of Human Rights, which states in Article 21 that "all human beings have the right to take part in the government of their country directly or through freely chosen representatives" (ONU, 1948). The construction proceeds from the law to the citizen's influence on the social environments in which he lives, as the author asserts that every individual exerts social influence.

Dallari's work is most closely aligned with that of the authors in his assertion that "for the people to choose authentic representatives, there must, first of all, be full freedom of information, allowing people to freely form their opinions based on as much data as possible" (1984, p. 41). In this sense, he posits that participation leads to awareness and organization, and he distinguishes between formal and real participation. Formal participation, which he defines as "the practice of formality that only affects secondary aspects of the political process", does not influence fundamental political decisions. In contrast, real participation "is that which influences fundamental political decisions in some way" (Dallari, 1984, p. 92).

Notably, none of the authors view participation as a substitute for representation, particularly in large-scale democracies. All the authors assert that participation is a foundational process for democracy and serves to complement representation (Arnstein, 2002; Bordenave, 1983; Dallari, 1984; Pateman, 1992a). For this to be viable, it is essential to embrace a contemporary conception of democracy, wherein participation is situated at the core of the decision-making process.

The advent of technology has also impacted participatory practices, with many shifting from a face-to-face format to an online one. Consequently, the literature is beginning to discuss e-participation, which is often used interchangeably with digital participation. This concept will be further examined in the subsequent section of this paper.

2.3 E-participation

E-participation emerged in the mid-1990s because of government informatization. Also called electronic participation or, more recently, digital participation, refers to the use of Information and Communication Technologies (ICT) to engage citizens in government decision-making and public policymaking (Quintero-Angulo; Sánchez-Torres; Cardona-Román, 2020). The concept of "eParticipation involves the extension and transformation of participation in societal democratic and consultative processes, mediated by information and communication technologies (ICTs)" (Sanford; Rose, 2007, p. 1). It encompasses not only democratic participation but also citizen involvement in e-government service delivery (Simonofski et al., 2021). It is a complex phenomenon involving various activities, including online expression and interaction (Tai; Porumbescu; Shon, 2020). It is not a separate form of participation but rather a complement to traditional modes of participation (Kubicek, 2010).

E-participation is considered a citizenship technology, increasing citizen involvement and collaboration in political processes (Banjac, 2017). It is an emerging research area focusing on using ICT to facilitate government-citizen relationships (Sanford; Rose, 2007). Despite its potential, implementing e-participation initiatives often falls short of expectations as a result of limited knowledge and policies (Mukherjee, 2019). Macintosh (2004) mentions the need for e-enabling to support the process of e-participation, as it is not enough to have the tool; you need to know how to deal with the amount of information beyond internet access. In addition to enabling, the author brings up the need for engaging as a second stage of the Levels of Participation model (Macintosh, 2004). Finally, in this model, we come to empowerment, which is characterized by citizens becoming producers of public policy and being involved in its formulation and agenda (Macintosh, 2004).

Working on the role of e-participation in expanding capacities, Macadar, Pereira, and Pinto (2019) place e-participation as a mechanism for expanding capacities since it increases the democratic and participatory involvement of individuals in society. Here, e-participation is shown as a different way of making participation in

democratic spaces effective, but with the same discussion of intrinsic and necessary values for participation, even more so because, as the authors point out, e-participation is not yet available to everyone, in this case, indirectly contributing to the increase in social inequalities, thus requiring the formulation of public policies to reduce the digital lacking (Macadar; Pereira; Pinto, 2019).

More recently, in an examination of how to integrate citizen deliberation in climate assemblies through governance, Boswell, Dean and Smith (2022) concluded that in public deliberation spaces, such as assemblies, the more space is opened up to stakeholders, which can help the governance process, the more difficult it is to attract wide publicity and grassroots activists to the discussion. This leads the authors to warn against being conscious of choices, as they generate trade-offs and unintended consequences for the deliberation process. The effectiveness of e-participation is contingent on its integration into existing participation processes (Kubicek, 2010).

Despite the proliferation of e-participation initiatives, their impact on broader and deeper citizen participation remains uncertain (Blanc, 2020), and some authors are trying to understand the cause of the decrease in e-participation (Pozzebon; Cunha; Coelho, 2016). The field of e-participation is dynamic, with a growing variety of tools and technologies available (Ergazakis; Metaxiotis; Tsitsanis, 2011; Tambouris; Kalampokis; Tarabanis, 2008). However, the potential of e-participation at the local level and in urban planning is not fully realized, and its low acceptance may be attributed to a lack of understanding of its context and barriers (Kubicek, 2010). Despite its potential, e-participation faces challenges, including needing a more comprehensive evaluation and identifying problem areas (Quintero-Angulo; Sánchez-Torres; Cardona-Román, 2020). This literature review aims to collaborate in this field.

3. Methodological procedures

To better understand how the scientific world has recently dealt with the issue of participation and e-participation, we decided to consult the main scientific bases using the systematic literature review methodology (Chapman, 2021; Denyer & Tranfield, 2009), investigating aspects to understand the approaches and elements of participation in studies on urban governance at the local level. The systematic review followed the following steps: elaboration of the research problem, definition of the corpus of analysis, construction and validation of the research strategy, data collection, reading the titles and abstracts, data cleaning based on exclusion criteria, complete reading of the articles and data analysis (Denyer & Tranfield, 2009).

The corpus of this research is constituted by articles on participation and e-participation, indexed in the databases Web of Science (WoS), Spell (Scientific Periodicals Electronic Library), Scopus, and Scielo (Scientific Electronic Library Online), without applying any filters regarding the year of publication. The databases were chosen considering that WoS and Scopus are world-renowned databases in different scientific fields; Spell is a reference in Brazil, especially in the fields of public and business administration, accounting, and tourism, and Scielo is a reference in studies carried out in Latin America.

The data were collected in April and May 2024, and the search strategy was determined based on the author's interest in research. The search strategy consisted of the search criteria shown in Table 1.

Table 1 – Criteria of Search

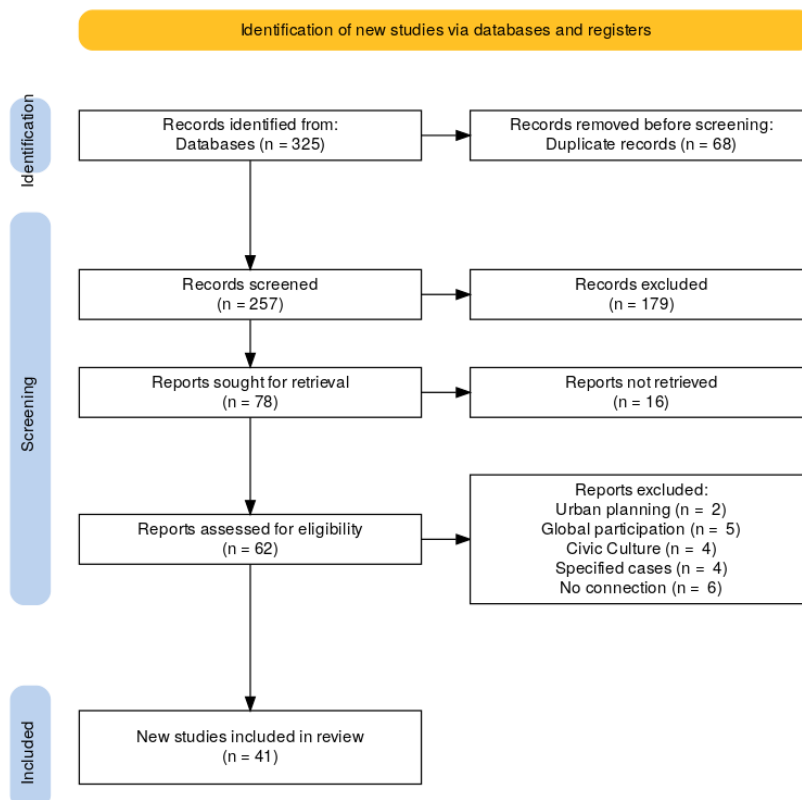
Database	Criteria of Search	Number of documents
Web of Science	English Title: ("public participation" OR "participation" OR "citizen participation") AND ("e-participation" OR "digital participation" OR "electronic participation") AND ("local governance" OR "municipal governance" OR "local government" OR "city governance" OR "urban governance" OR "local administration")	Title: 16
	Abstract: ("public participation" OR "participation" OR "citizen participation") AND ("e-participation" OR "digital participation" OR "electronic participation") AND ("local governance" OR "municipal governance" OR "local government" OR "city governance" OR "urban governance" OR "local administration")	Abstract: 16
Scopus	English Title, abstract, Keywords: ("public participation" OR "participation" OR "citizen participation") AND ("e-participation" OR "digital participation" OR "electronic participation") AND ("local governance" OR "municipal governance" OR "local government" OR "city governance" OR "urban governance" OR "local administration")	209

Scielo	Portuguese (all indexes): Option 1 - (participação pública OR participação OR participação cidadã AND governança local OR governança municipal OR governo local OR governança urbana OR administração local) Option 2 - (e-participação OR participação digital OR participação eletrônica AND governança local OR governança municipal OR governo local OR governança urbana OR administração local)	Port Op 1 - 1 Op 2 - 3
	Spanish (all indexes): Option 1: (participación pública OR participación OR participación ciudadana) AND (gobernanza local OR gobernanza municipal OR gobierno local OR gobernanza urbana OR administración local) Option 2: (e-participación OR participación digital OR participación electrónica) AND (gobernanza local OR gobernanza municipal OR gobierno local OR gobernanza urbana OR administración local)	Spa Op 1 - 15 Op 2 - 0
Spell	Portuguese (Title and abstract): Option 1 - “participação” E “cidade” OU “gestão municipal” Option 2 - “e-participação” E “cidade” OU “gestão municipal”	Port Op 1 - 38 Op 2 - 27
All documents		325

Source: Elaborated by the author (2024).

Data were collected from the databases and cleaned using the Rayyan software developed by the Qatar Computing Research Institute (QCRI) for systematic literature reviews (Ouzzani et al., 2016). All the cleaning follows the PRISMA protocol (Page et al., 2021). The software was used to read the documents' titles and abstracts and define the exclusion criteria. Documents without the words participation and e-participation in the abstract, articles dealing with participation in private spaces, which is not the focus of this study, and articles not focusing on participation and e-participation at the local level were excluded. Figure 1 shows the details of the PRISMA flowchart for the data collection and cleaning phases, describing the results of the article identification, screening, and included phases.

Figure 1 – Stages of collecting and cleaning data



Source: Elaborated by the author using Rayyan software (2024)

The literature search results in a total of 325 documents from the databases. After 68 duplicates were removed, 257 documents remained for title and abstract screening. Out of these, 179 documents were excluded as they were

irrelevant to the research subject, resulting in 78 documents being included in the sample for this literature review. In the search, there was no year limitation. The included documents consisted of 59 papers from scientific journals, 9 book chapters, and 10 conference papers. Access to the full text was not possible for 16 documents (3 journal papers, 5 conference papers, and 8 book chapters). Therefore, 62 full-text documents were available for the literature analysis. In the second phase, from the detailed analysis of these 62 texts, 21 were excluded for not fitting the research focus. The reasons for exclusion are shown in Table 2:

Table 2 – Reason for exclusion in the reading phase

Reason for exclusion	Reference
General Public Participation without Digital Focus	(Aravena & Silva, 2020; Esau, 2018; Lima-Silva et al., 2020; Panagiotopoulos et al., 2012).
Specific case analysis	(Dunne, 2010; Marin et al., 2001; Simione & Ckagnazaroff, 2017; Tramontano, 2021); Simione; Ckagnazaroff, 2017; Dunne, 2010; Marin; Vargas; Guerrini, 2001.
Civic culture focus	(Fernandes et al., 2010; Hovik & Giannoumis, 2022; Martins et al., 2020; Mulder & Hartog, 2011) Fernandes; Ruediger; Riccio, 2010.
Discussions of urban planning or design	(Ataman et al., 2024; Lieven, 2017).
Other discussions not related to this research	(de Moura, 1997; Goulart et al., 2016; Hernandez Bonivento, 2022; Mallan, 2018; Panagiotopoulos et al., 2011; Ruiloba Núñez, 2014)
Source: Elaborated by the author (2024).	

After reading the documents, 41 documents remain for the next stage of literature review. After a detailed reading of the articles, the different types of participation were identified, and the papers were categorized for analysis. The concepts that informed the discussions are presented below.

4. Concepts of Participation applied to the Local Level

According to the objective proposal and the application of the methodology, 41 studies are relevant to this paper.

4.1 Documents description

The first article indexed in Scopus was published in 2006 in the journal RWIT Transactions on Information and Communication Technologies, with the title E-democracy and citizen's empowerment: A case study of the city of Madrid (Santos & Alonso, 2006). The authors identify the use of ICTs to improve the relationship between citizens and government, increasing participation and the quality of public services. Over the last 18 years, research on the subject has been increasing, demonstrating the growth of interest in the topic.

As for the methodological aspects of the research, qualitative approaches are predominant, as shown in Table 3, with the predominant use of case studies, demonstrating the possibility of carrying out studies using other methodologies.

Table 3 – Studies approach and methodologies

Study Approach	Study Approach/ Method	Authors
Qualitative	Case Study	(Chun & Cho, 2012; Ntaliani et al., 2017; Revyakin, 2018; Rexhepi et al., 2018; Royo et al., 2020; Santos & Alonso, 2006; Scherer & Wimmer, 2012; Silva, 2020; Sivarajah et al., 2016; Steinbach & Süß, 2018; Ntaliani; Costopoulou; Karetsos, 2017; Sivarajah Et Al., 2016; Chun; Cho, 2012; Scherer; Wimmer, 2012; Santos; Alonso, 2006).
	Comparative Case Study	(Åström & Granberg, 2008)
	Literature Review	(Cropf; Benton, 2019; Smith, 2007)
	Exploratory Analysis	(Tejedo-Romero et al., 2022)
	Ontology Analysis	(Porwol et al., 2016)

Quantitative	Model Analysis	(Porwol et al., 2014a)
	Thematic Analysis	(Naranjo-Zolotov, Oliveira, Cruz-Jesus, et al., 2019)
	Process Analysis	(Scherer & Wimmer, 2012)
	Content Analysis	(Kim & Lee, 2012)
	Longitudinal Study	(Costopoulou et al., 2021)
	Quantitative Research	(Zolotov; Oliveira; Casteleyn, 2018; Zheng; Schachter; Holzer, 2014; Reddick; Norris, 2013)
	Survey Research	(Steinbach et al., 2020)
	Statistical Analysis	(Porwol et al., 2014a)
	Cross-Sectional Study	(Graziano, 2017)
	Structural equation modelling	(Naranjo-Zolotov, Oliveira, Casteleyn, et al., 2019)
Mixed	Experiment	(Royo et al., 2020)
	Surveys and experimental research	(Li & Kostka, 2022)
	Observation, discourse analysis, semi-structured interviews, unstructured conversations	(Graziano, 2017)
	Mixed Methods Research	(Hovik; Giannoumis, 2022; Pilehvar, 2021; Legard <i>et al.</i> , 2019; Ntaliani; Costopoulou; Karetso, 2017; Colombo, 2010; Santos; Alonso, 2006)

Source: Elaborated by the author (2024).

Based on an analytical reading of the articles, the different categories of studies and the main concepts covered in the research will be presented below.

4.2 Analytical categories

After reading all the documents, an effort was made to categorize the papers, and five categories emerged from the analysis. Table 4 presents the results:

Table 4 – Papers categories

Categories of Analysis	Number of studies	Authors
Challenges and Barriers to E-Participation	8	Man; Manaf, 2024; Hovik & Giannoumis, 2022; Lee & Kim, 2012, 2018; Naranjo-Zolotov, Oliveira, Cruz-Jesus, et al., 2019; Norris & Reddick, 2013; Ntaliani et al., 2017; Zolotov et al., 2018.
Empowerment and Citizen Engagement	6	Åström, 2020; Chun & Cho, 2012; Naranjo-Zolotov, Oliveira, Casteleyn, et al., 2019; Santos & Alonso, 2006; Silva, 2020; Steinbach et al., 2020.
Impacts and Benefits of E-Participation	9	Åström & Granberg, 2008, 2008; Colombo, 2010; Graziano, 2017; Legard et al., 2019; Legard & Hovik, 2022; Reddick & Norris, 2013; Revyakin, 2018; Rexhepi et al., 2018;
Technologies and Tools for E-Participation	7	Dias Cordeiro & Cacho Alessandro, 2018; Feeney & Welch, 2012; Kim & Lee, 2012; Li & Kostka, 2022; Mærøe et al., 2021; Sivarajah et al., 2016; Tejedo-Romero et al., 2022;
Theoretical Models and Practices of E-Participation	11	Costopoulou et al., 2017, 2021; Cropf & Benton, 2019; Pilehvar, 2021; Porwol et al., 2014a, 2014b, 2016; Royo et al., 2020; Scherer & Wimmer, 2012; Smith, 2007; Steinbach & Süß, 2018.

Source: Elaborated by the author using NVIVO (2024).

Eleven studies were classified as Theoretical Models and Practices of E-Participation; this category includes studies that develop and analyze theoretical frameworks and practical approaches for implementing e-participation. These papers provide models and guidelines for best practices, which inform policymakers and practitioners about strategies for promoting citizen engagement through digital means.

Nine studies address the Impacts and Benefits of E-participation. These impacts can include increased

transparency, improved accountability, greater citizen empowerment, and improved public trust in government. The papers explore both the direct and indirect benefits of e-participation. They show how digital tools can transform the relationship between citizens and their governments.

Eight studies focus on Challenges and Barriers, alerting us to the various obstacles that hinder the effective implementation and adoption of e-participation initiatives. These obstacles can be technical, social, and organizational. Studies in this category aim to identify these barriers and propose solutions to overcome them, ensuring broader and more effective citizen engagement.

Seven studies are about Technologies and Tools for E-participation. In this category, the researchers focus on developing, analyzing, and implementing technological tools and platforms designed to facilitate e-participation. These tools range from deliberation models and ontologies to various e-government applications and open data platforms. The first concern of these studies is to understand how technology can be used to improve citizen engagement, streamline decision-making processes, and increase governance efficiency.

Six studies can be categorized as Empowerment and Citizen Engagement. These papers explore how e-participation tools and platforms can empower citizens and improve their engagement in public affairs. These studies often focus on the social and psychological aspects of participation, including how digital tools can make citizens feel more involved and influential in governmental decision-making processes. With these five categories, it is possible to understand the state of research on e-participation.

5. Discussion about participation and e-participation

5.1 Structure of E-participation: insights from recent studies

E-participation is defined as using digital technologies and online platforms to engage citizens in the governance process. This involvement can take numerous forms, extending from simple information dissemination to more complex deliberation and decision-making processes. A review of the literature reveals that the structure of e-participation is composed of several elements.

The first key component is the technological infrastructure, an element decisive to the success of e-participation. This includes developing and deploying various digital platforms such as websites, mobile applications, and social media channels that facilitate citizen engagement. These platforms must be user-friendly, accessible, and secure to ensure broad participation (Porwol; Ojo; Breslin, 2014b; Sivarajah et al., 2016).

The second component to be considered is citizen engagement mechanisms because e-participation platforms could be distant and quickly lose interest. These mechanisms must provide citizens with multiple options to express their opinions, contribute to discussions, and make decisions on public matters. It can include online forums, surveys, participatory budgeting and deliberative spaces, and polling (Royo; Pina; Garcia-Rayado, 2020; Zolotov; Oliveira; Casteleyn, 2018).

The third element is institutional support because e-participation demands a will from political agents and strong support from local government. This includes resources, the establishment of supportive policies, and the training of public officials to manage and promote e-participation initiatives effectively (Reddick; Norris, 2013; Tejedo-Romero et al., 2022).

The fourth element is inclusivity and accessibility, one of the major problems today. Platforms for e-participation need to be inclusive and accessible to all segments of the population. This involves designing platforms that accommodate people with disabilities, providing content in multiple languages, and addressing the digital divide by offering public access points and digital literacy programs (Checkoway; Allison; Montoya, 2005; Ntaliani; Costopoulou; Karetos, 2017; Rexhepi; Filiposka; Trajkovik, 2018).

The fifth component is transparency and accountability. E-participation platforms must be transparent in their operations, allowing citizens to see how their inputs are used and what impact they have on decision-making processes. This transparency helps build trust and encourages continued citizen engagement (Chun; Cho, 2012; Kim; Lee, 2012).

The last component is continuous feedback and evaluation to improve e-participation initiatives. Gathering feedback from users and conducting regular assessments help identify areas for improvement and ensure that the platforms meet citizens' evolving needs (Graziano, 2017; Legard et al., 2019).

The structure of e-participation is complex, involving technological, institutional, and social components. Effective e-participation platforms require solid technological infrastructure, diverse engagement mechanisms, strong institutional support, inclusivity, transparency, and continuous feedback. The successful integration of these

elements can improve citizen e-participation, improve governance processes, and cultivate a more engaged and informed public.

5.2 Barriers and difficulties of implementing participation and e-participation at the local level

Implementing participation and e-participation at the local level is a complex effort that faces numerous barriers and difficulties. These challenges can be broadly categorized into technological, social, organizational, and political barriers. Ntaliani, Costopoulou, and Karetso (2017) discuss infrastructure and access as technological barriers because one of the most serious is the lack of adequate infrastructure. Local governments struggle with old technology, limited internet access, and insufficient digital tools. In the same way, Rexhepi, Filiposka, and Trajkovik, (2018) emphasize youth participation, bringing the problem of digital divide in society, which refers to the gap between those who have access to modern information and communication technology and those who do not, what remains a relevant issue. This divide can be based on socioeconomic status, age, geographic location, and education level, limiting the reach and inclusivity of e-participation initiatives.

The literature reveals concerns about social barriers, digital literacy, trust, and privacy. Kim and Lee (2012) demonstrated concern about trust in government and privacy and data security. One recommendation is that ensuring that personal data is protected and that platforms are transparent about how data is used is central to building trust. Regarding digital literacy, many citizens lack the necessary skills to use and engage with the participation platforms. The studies emphasize the necessity of adequate training and support, as these individuals are unable to participate fully in digital governance processes (Chun; Cho, 2012; Kim; Lee, 2012; Lee; Kim, 2012).

Regarding organizational barriers, two situations are concerned: resource constraints and the lack of expertise. In the public sector, financial and human resources often face constraints, but implementing e-participation platforms requires investment, and many local governments struggle to allocate resources to these initiatives. The same situation concerns human resources with expertise in digital technologies and public engagement. Many local government officials absence the necessary training and knowledge to manage these platforms effectively (Reddick; Norris, 2013; Tejedo-Romero et al., 2022).

The last barrier is political because, with frequency, the elected political officers often resist sharing the power with the people or the participatory institutions. The success of e-participation initiatives heavily depends on the political will of local leaders. Without a strong commitment from political leaders to prioritize and promote these initiatives, e-participation is unlikely to be effectively implemented. Traditional bureaucratic structures and processes can be inflexible, making it difficult to integrate new e-participation tools and methods (Norris; Reddick, 2013; Zheng; Schachter; Holzer, 2014).

Implementing both participation and e-participation at the municipal level presents several significant challenges. Technological limitations, such as deficiencies in infrastructure and the digital divide, impede accessibility to digital platforms. Social barriers, including digital literacy and trust issues, further diminish citizen engagement. Organizational constraints, such as insufficient resources and expertise, impede the deployment and management of electronic participation tools. Finally, political barriers, including resistance to change and a lack of political will, can impede the implementation of these initiatives.

To address these barriers, a multifactorial approach is required. Investments must be made in technology infrastructure and digital literacy programs. The establishment of trust through the implementation of transparent practices and data security measures can facilitate increased participation. In addition, local governments must ensure the allocation of sufficient resources and the provision of training to officials. It is of the utmost importance that strong political leadership and commitment be present to drive the adoption and success of e-participation initiatives.

5.3 Agents influencing the e-participation process and their power dynamics

The implementation and success of e-participation initiatives at the local level are influenced by various agents, each playing distinct roles with different degrees of power and influence. These agents include local government officials, citizens, technology providers, and civil society organizations. Understanding the dynamics between these agents is fundamental for designing effective e-participation systems.

Local government officials are central to the e-participation process. They are responsible for initiating, managing, and promoting e-participation platforms. Their commitment and support are critical for the allocation of resources and the integration of e-participation into the broader governance framework. As decision-makers, they have considerable power. Their attitudes towards e-participation can greatly influence its adoption and effectiveness. Strong political will and managerial support can drive successful e-participation initiatives, while resistance or lack of interest can block the process or make it just a formality without effectiveness (Norris & Reddick, 2013; Reddick & Norris, 2013; Tejedo-Romero et al., 2022; Zheng et al., 2014).

Citizens are the primary users of e-participation platforms. Their engagement is important for the success of these initiatives because they can contribute with opinions, feedback, and decisions through various digital tools provided by local governments. The paradox of participation is while citizens are the main beneficiaries of e-participation, their power is often limited by their access to technology, digital literacy, and the responsiveness of government officials (Åström, 2020; Kim & Lee, 2012; Mærøe et al., 2021; Rexhepi et al., 2018).

Civil Society Organizations (CSOs), including non-governmental organizations (NGOs), advocacy groups, and community organizations, often act as intermediaries between citizens and government. Sometimes, they have a place to represent part of society in participatory institutions. They can facilitate e-participation by mobilizing communities, providing digital literacy training, and advocating for citizen interests. Their power comes from their ability to organize collective action, advocate for policy changes, and provide expertise in specific areas of public interest (Boswell et al., 2022; Chun & Cho, 2012; Smith, 2007).

The power dynamics in e-participation are shaped by the interactions between these agents. Local government officials typically hold the most power in terms of decision-making and resource allocation. However, the influence of citizens and CSOs can increase through active engagement, advocacy, and the effective use of technology. Technology providers hold technical power, influencing the usability and functionality of e-participation platforms. Balancing these power dynamics is decisive for the success of e-participation. Ensuring that citizens and CSOs have meaningful opportunities to contribute and influence decisions can lead to more inclusive and democratic governance (Boswell et al., 2022; Chun & Cho, 2012; Smith, 2007).

5.4 Factors that improve e-participation at the local level

Based on the literature review, there are best practices that should be considered when developing a model for implementing an e-participation tool at the local level. These best practices are fundamental for ensuring the success and effectiveness of the e-participation initiatives (Table 5).

Table 5 – Findings

Finding	Details	References
Solid Technological Infrastructure	Ensure high-speed internet access, reliable digital platforms, and secure data management systems.	Porwol <i>et al.</i> (2014), Sivarajah <i>et al.</i> (2016)
User-Friendly Platforms	Design intuitive interfaces with clear instructions and easy navigation to lower barriers to entry.	Ntalani <i>et al.</i> (2017), Chun & Cho (2012)
Strong Institutional Support	Secure financial backing, active promotion by public officials, and integration into governance frameworks.	Reddick & Norris (2013), Tejedo-Romero <i>et al.</i> (2022)
Citizen Education and Digital Literacy	Provide educational programs and workshops to improve digital literacy among citizens.	Kim & Lee (2012), Rexhepi <i>et al.</i> (2018)
Inclusivity Measures	Ensure platforms are accessible to all, including support for disabilities, multilingual content, and bridging the digital divide.	Silva (2020), Santos & Alonso (2006)
Transparency and Accountability	Maintain transparent operations and clear communication on how citizen input is used.	Royo <i>et al.</i> (2020), Zheng <i>et al.</i> (2014)
Continuous Feedback and Evaluation	Regularly gather user feedback and conduct evaluations to improve platforms.	Legard <i>et al.</i> (2019), Graziano (2017)
Engagement Mechanisms	Utilize various tools like online forums, surveys, and participatory budgeting to engage citizens.	Royo <i>et al.</i> (2020), Zolotov <i>et al.</i> (2018)
Partnership with Technology Providers	Collaborate with technology providers to ensure platforms meet civic needs and are technologically sound.	Porwol <i>et al.</i> (2016), Sivarajah <i>et al.</i> (2016)
Inclusive Decision-Making	Involve diverse groups of citizens to ensure broad representation in decision-making.	Kim & Lee (2012), Hovik <i>et al.</i> (2017)

Source: Elaborated by the author (2024).

The implementation of e-participation at the local level represents a significant advance in democratic engagement, providing a platform for increased citizen involvement in governance processes. This paper has examined the multiple aspects of e-participation, highlighting the critical components necessary for its successful implementation and the barriers that must be addressed.

First, a solid technological infrastructure is indispensable for the success of e-participation initiatives (Porwol et al., 2014b; Sivarajah et al., 2016). These technological investments ensure that e-participation tools are both

accessible and trusted, thereby fostering greater citizen engagement. User-friendly platforms are also needed. Studies by Ntaliani et al. (2017) and Chun & Cho (2012) highlight the importance of designing intuitive interfaces that are easy to navigate. The role of local government officials is decisive. Research by Reddick & Norris (2013) and Tejedo-Romero et al. (2022) emphasizes the need for strong institutional support, including financial backing and active promotion by public officials. In addition, citizen education and digital literacy are critical factors that influence the effectiveness of e-participation. The literature shows by equipping citizens with the necessary skills, these initiatives can increase engagement. In the same way, inclusivity policies are equally relevant, ensuring that e-participation platforms are accessible to all population segments.

Transparency and accountability are fundamental to building trust in e-participation initiatives. Royo et al. (2020) and Zheng et al. (2014) emphasize the need for transparent operations and clear communication about how citizen input is used. This transparency fosters trust and encourages continued citizen participation. Continuous feedback and evaluation are necessary for continuously improving e-participation platforms. Studies by Legard et al. (2019) and Graziano (2017) show that regular feedback from users and periodic evaluations help identify areas for improvement, ensuring that platforms remain responsive to citizens' needs and preferences.

Engagement mechanisms, such as online forums, surveys, and participatory budgeting tools, provide multiple avenues for citizen participation. The effectiveness of these mechanisms has been demonstrated by Royo et al. (2020) and Zolotov et al. (2018), showing that diverse tools can facilitate richer and more meaningful citizen engagement. Partnerships with technology providers are critical to ensure that e-participation platforms are technologically sound and meet the needs of citizens. The collaborative efforts highlighted by Porwol et al. (2016) and Sivarajah et al. (2016) demonstrate the value of aligning technological solutions with local governance requirements. Finally, inclusive decision-making processes, as advocated by Kim & Lee (2012) and Hovik & Hanssen (2017), ensure that diverse groups of citizens are represented in the e-participation process. This inclusivity is fundamental for creating a participatory governance model that reflects the community.

6. Final remarks

The research results suggest that the successful implementation of e-participation at the local level depends on a multifactorial approach that addresses technological, social, and institutional factors. By following the best practices and lessons learned from the literature, local governments can create effective e-participation platforms that increase democratic participation and foment a more inclusive and responsive governance system.

This approach emphasizes the importance of incorporating the experiences and knowledge of key agents to contribute to urban governance. The analysis of the papers raised questions about the perception of agents in relation to participation and whether these agents are willing to share decision-making. Understanding the role of different agents in the participatory process, the barriers, and good practices helps to better understand the e-participation scenario. Given these aspects, future studies could investigate the relationships between agents and the impact on decision-making, demonstrating the power relations between the agents involved and the structure of e-participation.

As a possible limitation of the study, it should be acknowledged that the database refinement stage did not consider studies published in languages other than English, Spanish, and Portuguese. It is suggested that, in future studies, the search should be broadened to include other international publications. With this study, we hope to see new research that describes, discusses, exemplifies, and formulate proposals for more participatory cities.

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