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Citizens influencing public policy-making: Resourcing as source of relational power in e-participation platforms

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Abstract

E-participation platforms create spaces and opportunities for participation and collaboration between governments and citizens. This paper aims to investigate the role of power on *formal e-participation platforms* and digital spaces that are controlled by the governments. Although those types of platforms have been increasing in numerous countries, they have been criticised as often leading to a lack of or decrease in citizen engagement. We propose a relational view that examines how power is related to the use of resources in practice, that is, to resourcing. To explore this issue, we examine citizens' participation on three urban mobility platforms in three major Brazilian cities. Our study makes two main contributions. First, we contribute to the literature on e-participation by explaining how a relational view of power helps to understand the nature and consequences of citizen participation in public policy-making. Second, we integrate the concept of resourcing as both a source and constitutive element of relational power. We propose a process-based model of resourcing as power that opens the black box of resourcing through the identification of three distinct phases in time: *resourcing IN, resourcing WITHIN* and *resourcing OUT*.

KEYWORDS
government-owned e-participation platforms, power, practice-based view, process-based model, relational view, resourcing

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1 | INTRODUCTION

E-participation platforms connect governments and citizens in decision-making processes through the use of information and communication technology (ICT) (Macintosh, 2004; Medaglia, 2012; Susha & Grönlund, 2012). Such platforms have been able to influence and change the nature of interactions between citizens and private/public organisations (de Reuver, Sørensen, & Basole, 2018; Macintosh, Gordon, & Renton, 2009; Medaglia, 2012). In this study, we look at e-participation platforms, and we attempt to understand the role of power therein. We focus on one type of e-participation platform, referred to as *formal* platforms, which are proposed by governments to involve citizens in public policy-making (Glassey, 2010; Macintosh et al., 2009). *Formal e-participation platforms* (FEPs) create spaces for participation and collaboration, thereby mediating the relationship between governments and citizens (Macintosh et al., 2009; Medaglia, 2012; Panopoulou, Tambouris, & Tarabanis, 2014; Susha & Grönlund, 2012). One of the reasons why we focus on government-led FEPs is their increasing presence in and relevance to most countries (Porwol, Ojo, & Breslin, 2016, 2018).

Despite some documented positive impacts, FEPs can also serve as barriers to democratic and open participation. As they are controlled by governments, who are the owners of the process, FEPs have been criticised because they often lead to a lack of engagement by citizens (Ainsworth, Hardy, & Harley, 2005; Porwol et al., 2016; Rodríguez Bolívar & Muñoz, 2018). This might happen when unequal access to, technological dependence on, and misunderstandings of the e-participation process occur (Cegarra-Navarro, Garcia-Perez, & Moreno-Cegarra, 2014; Janowski, Estevez, & Baguma, 2018), thus reinforcing governmental authority through mechanisms that impose surveillance or legitimising governmental interests and political agendas (Åström, Granberg, & Khakee, 2011). Although several studies have investigated different aspects of and challenges related to FEPs faced by the providers and users of these initiatives (Porwol et al., 2016; Sæbø, Rose, & Molka-Danielsen, 2010; Tambouris et al., 2012), we know very little about how these platforms might help influence or transform public policy processes.

We argue that understanding the influence of e-participation in processes involving public policies requires a better understanding of the power relations that mediate interactions between governments and citizens. Changes in the power balance between internal government activities and public policy formulation caused by e-participation interactions must be considered. In this respect, we were surprised by the dearth of studies found on the interface between decision/policy-making and e-participation platforms that mobilise the concepts of power (Ainsworth et al., 2005; He, Boas, Mol, & Lu, 2017; Lim & Oh, 2016; Purdy, 2012), especially those that incorporate the practice view of power. Our knowledge of e-participation platforms might benefit from an understanding of power dynamics. Diverse perspectives have been applied to investigate the complex and relevant concept that power represents, particularly in the information systems (IS) literature (Jasperson et al., 2002). Despite such diversity, Simeonova, Galliers, and Karanasios (2017) identified the predominance of two main perspectives, namely, 'episodic/power over' and 'systemic/power to'. Episodic views of power, which are quite common in IS studies, seek to understand the exercise of power for the control of, coercion of, formal authority over or access to critical resources (eg, Dahl, 1957; Lukes, 1974; Pfeffer & Salancik, 1978). The second view is related to a systemic, relational view of power performed through practices (eg, Clegg, 1989; Foucault, 1980, 1982). Numerous IS scholars have incorporated a practice view and have provided novel explanations for complex IS phenomena (eg, Avgerou & McGrath, 2007; Doolin, 2004; Tello-Rozas, Pozzebon, & Mailhot, 2015).

Our work on e-participation platforms is aligned with the second view. We adopt a relational view to grasp how power is related to the use of resources in practice, that is, to resourcing (Feldman, 2004). It has long been argued that resources are important for understanding power relations (eg, Giddens, 1984). However, the literature on resourcing does not purposefully address the role of power (Delgado, 2016; Howard-Grenville, 2007). By developing this view, in which social actors identify potential resources and choose how to use them to reproduce or change structures of power in practices of e-participation, we offer a second and unexpected contribution, that is, we extend Feldman's (2004) work by integrating resourcing as a source of relational power.

The research question guiding this study is: *How does power help to understand the nature and consequences of citizens' participation in e-platforms owned by the government and its influence on policy-making decisions?* To explore this issue, we propose a methodological design that compares three in-depth case studies from an instrumental perspective (Stake, 2000). We examine citizens' participation in three e-participation urban mobility platforms coordinated by municipal governments of three large Brazilian cities (namely, São Paulo, Rio de Janeiro and Curitiba). We analyse the choices made by social actors during their interactions with the e-participation platforms, the resources used in practice, the mechanisms and tactics implemented and the consequences of all these practices. Our study makes two main contributions. First, we contribute to the literature on e-participation platforms by explaining how a relational view of power helps us to understand the nature and consequences of citizen participation in policy-making decisions. We focus on formal platforms (eg, FEPs), those owned by governments, given the increasing importance of this relevant type of digital landscape. Second, we integrate the concept of resourcing as a constitutive element of relational power, and we corroborate the value of bridging practice and possession epistemologies in the understanding of power dynamics. In this vein, we contribute to the resourcing literature (Feldman, 2004) by proposing a process-based model of resourcing as power that opens up the black box of resourcing by identifying three distinct phases in time: resourcing IN, resourcing WITHIN and resourcing OUT.

2 | e-PARTICIPATION PLATFORMS

e-Participation may be defined as interactions between governments and citizens that are mediated by technology, thereby enabling the latter to influence public policy-making (Medaglia, 2012; Susha & Grönlund, 2012; Zissis, Lekkas, & Papadopoulou, 2009). Numerous scholars have put forward a conceptualisation of e-participation that is close to politics and involves the use of ICT to extend and transform participation in democratic and consultative processes of society in which ICT functions as a channel that enables the broadening of the scope of deliberative processes (Sæbø, Rose, & Flak, 2008).

The literature review reveals two main modalities of e-participation: from the inside or from the outside (Glassey, 2010; Kamal, 2009; Khan et al., 2017; Sanford & Rose, 2008). Examples of outside modalities of e-participation include social media platforms, such as Facebook and Twitter, through which citizens and activists take the initiative in regard to engaging in political discussions (Miranda, Young, & Yetgin, 2016; Porwol et al., 2018). Inside modalities are mainly represented by e-participation platforms that are developed by governments to engage citizens in a dialogue regarding public policy issues. These platforms allow citizens to make suggestions or become involved in a more deliberative way (Macintosh et al., 2009). Our study focusses on inside modalities, called formal e-participation platforms (in this study, simply FEPs), which are often managed by governments in a top-down style (Porwol et al., 2016, 2018), and usually uses tools such as forums, chats, surveys and blogs in either a consultative or a deliberative format (Glassey, 2010; Macintosh et al., 2009; Zissis et al., 2009). The literature review that follows mainly concerns studies related to FEPs.

Although investigations of FEPs target a wide range of topics, some subjects have drawn greater attention, such as (a) factors influencing the adoption of e-participation practices and tools (Norris & Reddick, 2013; Persaud & Persaud, 2013; Reddick & Norris, 2013; Savoldelli, Codagnone, & Misuraca, 2014); (b) the various ways of evaluating initiatives (Colombo, Kunstelj, Molinari, & Todorovski, 2011; Höchtl, Parycek, & Sachs, 2011; Jiang & Xu, 2009; Panopoulou, Tambouris, Sanchez-Nielsen, Zotou, & Tarabanis, 2011; Panopoulou, Tambouris, & Tarabanis, 2008); (c) success factors for promoting implementation or increasing participation (Manoharan, 2013; Panopoulou et al., 2014; Sánchez-Nielsen & Lee, 2013); (d) e-participation mechanisms/tools (Zissis et al., 2009) and (e) barriers, facilitators and challenges (drivers) for e-participation initiatives (Åström & Granberg, 2007; Federici, Braccini, & Sæbø, 2015; Royo, Yetano, & Acerete, 2014). Additionally, many analytical e-participation process frameworks have been proposed (eg, Macintosh, 2004; Medaglia, 2011; Panopoulou et al., 2008; Porwol et al., 2016; Rose & Sanford, 2007; Sæbø et al., 2008; Susha & Grönlund, 2012; Tambouris et al., 2012; Wimmer, 2007; Wirtz, Daiser, &

Binkowska, 2018). A careful analysis of this body of literature leads us to identify some important dimensions for building those frameworks, including the social actors involved, their level of engagement, and the tools and the strategies that are mobilised.

The social actors involved in the processes of e-participation include citizens (for example, users or founders of the platforms), politicians, government institutions and volunteer organisations (Susha & Grönlund, 2012). Studies on e-participation have generated different models that evaluate citizens' levels of engagement in public policy-making (Koussouris, Charalabidis, & Askounis, 2011; Macintosh, 2004; Tambouris, Liotas, & Tarabanis, 2007), which vary from e-information, which provides citizens with public information and access to this information either through websites or on-demand, to e-consulting, which enables consulting citizens to make more significant contributions until e-empowerment is achieved. Common to all of these models, the highest level of e-participation with empowerment is achieved when a platform for participation enables citizens to play an active role in public policy-making. FEPs have different formats, such as public consultations, panels, discussion forums and surveys, and their design (features and formats) can affect the extent of citizen participation (Gaventa & Barrett, 2012; Janowski et al., 2018; Zissis et al., 2009). Additionally, providers of FEPs might adopt different strategies, such as (a) isolated, which is characterised by a low integration and independent coordination of tools; (b) combined, 'which distinguishes itself by addressing particular synergies between the use of different tools' that are coordinated separately and (c) integrated, which is related to the integration of different tools that are coordinated simultaneously and used in complementary ways (Wirtz et al., 2018, p. 5).

Although governments that are more committed to increasing citizens' active participation in democratic processes do exist (Mahrer & Krimmer, 2005), there is a lack of knowledge about how to provide tools and apps. Through which, deliberation and policy-making can occur in an effective and participatory manner (Rodríguez Bolívar & Muñoz, 2018). Thus, it is necessary to address aspects of e-participation that are related to the improvement in deliberative processes and policy-making and that provide answers to criticisms of government domination and lack of engagement by citizens. In the next section, we explain why we argue that a better understanding of the role of power is key for advancing such studies.

3 | POWER: POSSESSION AND PRACTICE VIEWS

Power is a complex and widely explored concept not only in Management and IS (Jasperson et al., 2002; Marabelli & Galliers, 2017) but also in the more general field of Social Sciences (Benson, 1975, 1977; Bourdieu, 1989, 1996; Clegg, 1989; Dahl, 1957; Foucault, 1980; Hardy, 1994; Jasperson et al., 2002; Pfeffer & Salancik, 1978). As stated in the introduction, in IS studies on power, two main views can be identified, the 'episodic/power over' and the 'systemic/power to' (Hislop, 2013), which we report as power possessed versus power practiced (inspired by authors such as Marabelli & Newell, 2014).

In the first group of studies, several authors assume that power exists as a capacity that can be possessed and exercised over others, that is, a power that denies, represses or coerces the individuals involved in the process (Bloomfield & Coombs, 1992; Lukes, 1974). This understanding of power is usually associated with authority over critical resources and their distribution, such as funding and information (1962). This perspective can be found in early studies of IS and organisations (eg, Bariff & Galbraith, 1978; Markus, 1983) and remains predominant in the IS field (Hislop, 2013; Jasperson et al., 2002; Simeonova et al., 2017). We argue that this first group takes part in the epistemology of possession, where power is addressed in static terms as something to be possessed and exercised by individuals or groups. Power is related to the ability to guarantee positions of authority or control over resources (Markus & Bjørn-Andersen, 1987). This perspective tends to focus on a formal hierarchy of authority and organisational structures as sources of coercive and legitimate power. The ability to exercise control over scarce or critical resources also gives power to those who possess it (Pfeffer & Salancik, 1978). In ICT projects, the allocation and control of resources (eg, information or training) are revealed as important ingredients in power relations

(Azad & Faraj, 2011; Pozzebon & Pinsonneault, 2005, 2012). From this perspective, Hardy and Phillips (1998) proposed an analysis of power through a view of authority as the control of resources and/or legitimacy of actors. The question of who has authority can play an important role in policy-making and the use of resources. Sometimes, participants have no formal authority but do have an important resource, or they do not yet have authority or resources but can influence policy-making because they have mastered the subject, which allows them to represent a certain group of people.

According to Clegg (1989), this dominant approach fails by not recognising that power is also relational. A practice view assumes that power is inseparable from the context of the action in which it is created, produced, reproduced and transformed (Marshall & Rollinson, 2004; Peppard, Galliers, & Thorogood, 2014). When power is addressed from a practice or relational perspective, relationships and discourses emerge as relevant sources of power and are seen as socially constructed, thereby allowing actors to communicate, act, contend and become legitimated (eg, Avgerou & McGrath, 2007; Doolin, 2004). These relational views of power are strongly influenced by the work of Foucault (1982), who focusses on the relational nature of power, that is, on the ability of individuals to act regarding the actions of others (Foucault, 1980, 1982). From this perspective, the focus of power is on its relational and emergent character and its mutually constitutive relationship with practice (Marshall & Rollinson, 2004). Foucault (1979) attempts to delineate a concept of power as constitutive, often anonymous and exercised through a wide range of micro strategies and tactics. We associate this second perspective with the epistemology of practice.

It is important to note that adopting a practice or relational view on power does not necessarily mean refuting the value of the possession view. In contrast, some authors support a combination of these two perspectives to understand the power (eg, Tello-Rozas et al., 2015). In our study, we support the value of such a synergy, although we place more emphasis on the relevance of a relational view. From a relational view, power is related to the *use of resources in practice*, that is, to *resourcing*, as proposed by Feldman (2004). The resourcing lens is useful for analysing situations in which actors are at a disadvantage concerning others (Delgado, 2016). Unlike in resource dependence theory (Pfeffer & Salancik, 1978), in Feldman's view, resources are not only fixed properties but also dependent on their use in a particular context. A resourcing lens considers the multiple dimensions of power (Hardy, 1994) and understands how these forms facilitate interaction that changes the outcome of actions (Howard-Grenville, 2007).

4 | e-PARTICIPATION AND POWER

Our review of e-participation studies revealed that while there have been wide-ranging discussions on citizen empowerment and levels of participation (Fedotova, Teixeira, & Alvelos, 2012; Koussouris et al., 2011), there has been a scant focus on the employment of power as a theoretical perspective for analysing the field. Table 1 shows how studies have addressed power on e-participation platforms according to the two approaches proposed by the IS literature review on power.

From a possession viewpoint, a few authors have analysed power as a component of participation that influences public decisions (Åström et al., 2011; Svensson, 2011). These studies view power as being related to formal authority or the control of resources. In this sense, authority is a source of power used to control participation (Svensson, 2011). On FEPs, the government has the legitimate authority to control the process, establish the rules and determine how broad the participation will be. The government's authority to define and impose such rules is accepted because citizens share a belief in the reasoning underpinning the regulation of human activity through legal and bureaucratic hierarchies. In this respect, the formal authority may inhibit the results of participation. Instead of being guided by the ability to respond to citizens, authoritarian governments respond to pressure by showing their legitimacy through e-participation sites, and, at the same time, they use such sites to strengthen their authority and extend repressive actions and bureaucratic processes that also permeate the online interactions between government and citizens (Åström et al., 2011; He et al., 2017).

TABLE 1 Power on e-participation platforms

Power		Source of power	Authors
Possession	Authority	Legitimacy of the government, belief in reasoning and regulation of human activity through legal and bureaucratic hierarchies.	Ainsworth and Hardy (2007); Åström et al. (2011); He et al. (2017); Svensson (2011); Wagner, Vogt and Kabst (2016)
	Control of resources	Information, digital skills and political information.	Ainsworth et al. (2005); Åström and Granberg (2007); Elliman and Taylor (2008); He et al. (2017); Lim and Oh (2016); Purdy (2012); Sanford and Rose (2008)
Practice	Capabilities	Dynamic distribution of allocative and authoritative resources.	Porwol et al. (2016, 2018)

On FEPs, the control of resources can influence the number of participants and how well-informed they are; such control can also be used to influence people's level of involvement in participation (He et al., 2017; Purdy, 2012). Studies have shown that citizens with less digital and technological knowledge, those with insufficient funds for a smartphone and/or those with a limited internet connection may be excluded from e-participation, which results in having less representation in public policy-making processes. Furthermore, participation on platforms tends to provide an even greater advantage to powerful people, who are digitally literate and have a repository of information and knowledge regarding political issues (Sanford & Rose, 2008).

It is important to identify who has authority and who controls resources (Hardy & Phillips, 1998). Sometimes, authority is a means of obtaining resources; resources may be concentrated in the hands of certain powerful players, or an actor may not have formal authority but still have important resources. For example, the information held by government agencies gives them an influence that extends beyond their authority (Purdy, 2012). The government has the power to open or close a governance process, to decide whether to include actors and to control information through recognised authority (Elliman & Taylor, 2008; Purdy, 2012). However, other actors may control information or have expertise regarding certain subjects and skills, which can give them power. For instance, Ainsworth et al. (2005) analysed participation forums and how power is exercised through this medium. Their findings showed that the way the platform is managed, and the rules the government imposes influence how interactions between actors occur. The nature of this interaction is reflected in the existence of power relations, and some participants succeed in imposing power through the perceived legitimacy of the results they present.

We found one study of e-participation whose authors adopted a relational viewpoint, namely, Porwol et al. (2016, 2018). These authors integrated structuration and dynamic capability theories to understand the distribution of allocative and authoritative resources between citizens and decision-makers in policy-making. To ensure that citizens' contributions are recognised by the government and then processed and leveraged in a constructive manner, the platform infrastructure must provide citizens with adequate allocative resources and important authoritative resources (legislative rights or privileges) to support them in their democratic rights (Porwol et al., 2018). According to these authors, with adequate resources, citizens can participate in a public decision-making context.

In sum, most authors discussing e-participation platforms have presented a possession view of power, while very few have incorporated a relational view. We claim that such a lack of relational studies decreases our ability to understand the complexity of the e-participation phenomena. We argue for the value of adopting a resourcing approach to improve the research on power from a relational viewpoint. The resourcing lens – a relational view par excellence – reveals the dynamism of resources and how resources assume meaning in practice (Feldman, 2004;

Feldman & Quick, 2009; Howard-Grenville, 2007; Wiedner, Barrett, & Oborn, 2017); furthermore, it helps us understand how actors build influential movements and why certain movements are more effective in achieving the goal of influencing the policy-making process.

5 | RESOURCING AS POWER

The traditional view of resources focusses on the innate characteristics of assets rather than on how they are used (Feldman, 2004). In this sense, a perspective referred to as resourcing is rooted in the structuration theory of Giddens (1984). Two elements of resourcing theory are important in the context of our study: (a) the contributions of the terms 'potential resources' and 'resources in use' and (b) the relationship between 'resourcing and power'.

First, the perspective of resourcing reveals the dynamism of resources and how certain meanings are attached to them (Feldman, 2004; Feldman & Quick, 2009; Feldman & Worline, 2012; Howard-Grenville, 2007; Sonenshein, 2014; Wiedner et al., 2017). Resourcing is treated as an element of the structure and is mobilised through action, thereby generating a new schema based on how the 'rules of the game' change during an interaction (Feldman & Quick, 2009). The resourcing perspective argues that how people use resources (not the possession or distribution of resources) influences whether and how social change will occur. A resource is not a fixed property but is instead dependent on its use relative to a particular frame from a resourcing perspective; it is crucial to distinguish between a potential resource and a resource in use (Feldman & Worline, 2012). Feldman and Quick (2009, p. 140) classified potential resources as 'static things that have only potential'. Potential resources might be put into use, thus making their availability significant. The emphasis on practice as being central to resources in use is a unique and essential aspect of resourcing theory (Quick & Feldman, 2011). The ability to recognise how potential resources can influence behaviour and relationships is important for understanding how and why change occurs (Wiedner et al., 2017).

Second, examining the relationship between resources and power, Giddens (1984) stated that resources are structured properties of social systems that are harnessed, reproduced and mobilised by agents during an interaction. Power and resources are two interconnected concepts, but resources are converted into power at the interactional level. Resources are the instruments through which power is exercised as a routine element of the instantiation of conduct in social reproduction (Giddens, 1979). Resourcing is understood as a source of relational power, where social actors identify potential resources and select how to make use of them to reproduce or change structures of power in practice.

We argue for the value of understanding resourcing as a source of power, but the literature has yet to fully explore this approach (Delgado, 2016; Howard-Grenville, 2007). Such studies might benefit from a better understanding of how actors use resources in practice to influence and modify power structures and why those resources are used. Public policy-making is influenced by the interests and actions of different actors with predetermined roles. However, over time, actors act in different ways so that they can influence the process, thereby exercising power in practice. FEPs can be an opportunity for citizens or groups to influence public policies. Governments use digital spaces to facilitate communication with citizens; however, on numerous occasions, they have been shown to dictate the rules and limit the discussion spaces. Therefore, dominant actors can ignore the majority of citizens (Ainsworth et al., 2005). More powerful actors usually control participation in e-participation platforms (Åström et al., 2011), and this power can be used to influence decisions involving participants' inclusion and exclusion (Hardy & Phillips, 1998). Lacking resources, voice or legitimacy, less powerful actors may be left out of the process (Feldman & Quick, 2009). Therefore, the interplay of possession and practice in the power relationship between governments and citizens on e-participation platforms is particularly important. The relational view of power that is manifested through the resourcing that is used and/or created (Delgado, 2016; Feldman & Quick, 2009) is useful for exploring how interactions occur over time. This represents a second and unexpected contribution of this study, as previously mentioned.

6 | RESEARCH CONTEXT AND METHODS

We designed in-depth comparative case studies. We followed the guidelines of Stake (2000) in conducting instrumental cases, which is a perspective that seeks to produce knowledge from one or more situated cases that might be transferred or extended to other similar cases. We investigated three FEPs that have been implemented to enable citizens to participate in the development of public policies for urban mobility in three large Brazilian cities (namely, São Paulo, Rio de Janeiro and Curitiba). The methodological design followed a process-based logic, which was influenced by the works of Pettigrew (1997) and Langley (1999). The three case studies were selected to enable the continuous examination of the citizen participation process in different contexts, which revealed multiple sources and cycles of interaction and connectivity that were crucial in identifying and explaining patterns in the process. In this section, we present the research context, data collection and analysis.

6.1 | Research context – The three cases

These three cities and their e-participation platforms were selected for three main reasons. First, they represent rich cases of FEPs that seek to provide solutions for urban mobility and explore its impact on large cities. In June 2013, thousands of Brazilian citizens took to the streets to protest against increases in public transport fares; after heavy police repression, they gained public support. The movement extended to include opposition to the overall poor quality of public services and government corruption. The demonstrations had national and international repercussions and are now considered a milestone in the recent Brazilian political scenario. Since then, issues such as urban mobility and citizen participation have become more relevant, particularly in the three cities under study.

The second reason is the national importance of the three cities. São Paulo (12 million inhabitants) and Rio de Janeiro (6.5 million inhabitants) are the most populous cities in the country and are among the largest on the South American continent. São Paulo (SP) is considered the most influential city in Latin America and has a complex transport system with different modes that enable people to move within the city and between other cities in the metropolitan region. Rio de Janeiro is the largest tourist city in the country and hosts global events. In turn, Curitiba (CWB) (2 million inhabitants) is internationally recognised as an innovative city in urban planning, particularly in mobility. The well-known *Bus Rapid Transit* system was developed in Curitiba and has been subsequently implemented in cities on different continents (Gustafsson & Kelly, 2016).

We also chose these cases because we could find evidence – in the press and from our network – that citizens' participation was influencing local public policies in these areas, while their respective FEPs presented interesting differences in terms of their underlying models. e-Participation in platforms can involve a consultative model (ie, focussed on vertical communication between governments and citizens and information sharing) or a deliberative model (ie, active decision-making with interaction and discussion between governments and citizens) (Ainsworth et al., 2005). The platforms of Rio de Janeiro and Curitiba are deliberative, while that of São Paulo is consultative. The three platforms are described below.

> *Case* 1. – *Ágora-RIO*[1] consists of an FEP for discussing and proposing public policies and improvements in urban mobility. Citizens can leave their suggestions based on the themes proposed by the Rio de Janeiro Sustainable Urban Mobility Plan (PMUS). The PMUS defines the directives for public investments in mobility in the city over a 10-year horizon from 2016–2026. The platform was designed by Lab. Rio, which is a government laboratory developed by a company specialising in social innovation platforms and managed jointly by Lab. Rio and the Municipal Secretary of Transportation. e-Participation was enabled through a deliberative platform where citizens could submit and debate proposals, which resulted in approximately 2700 interactions on the FEP. For the first time, Rio de Janeiro used digital tools to allow participation in regard to preparing plans, which resulted in some

exciting changes, such as the inclusion of public transportation routes not foreseen by the technical staff and the start of the elaboration of the city's cycle plan.

Case 2. – The *PDirect-CWB* platform[2] is hosted under the domain of the Curitiba municipal government. It was created to serve as the digital link between citizens and the team in charge of drafting the Director Plan, which is the fundamental instrument for the urban development policy of Brazilian cities. On the platform, a forum was opened for citizens to submit their suggestions. The platform was created and developed by the governmental institution called the Institute for Research and Urban Planning of Curitiba (IPPUC), which has formal authority over the plan. e-Participation in this situation enables citizens to submit proposals and the government to answer questions on the FEP.

Case 3. – The *PlanMob-SP* platform[3] is hosted under the domain of the São Paulo municipal government and was created to inform the population of São Paulo about actions related to a project of the same name related to urban mobility. *PlanMob-SP* is a planning and management instrument that guides municipal urban mobility policy on behalf of the collective interest. It indicates the principles, directives and actions of this policy over a 15-year horizon (2015–2030). The platform was used to create a digital space where citizens can search for information on the mobility plan. The schedule for every meeting and the current legislation is posted there, along with other information. The platform was designed and developed by the municipal agency in charge of drafting the mobility plan. e-Participation was enabled through a call for contributions with both open-ended and closed-ended questions, which resulted in approximately 7600 responses.

Some of the important elements for the comparison of the three cases are summarised in Table 2.

6.2 | Data collection

We used three sources of data collection: (a) semistructured interviews; (b) published documents, which include legislation, posts and their answers, proposals and comments and (c) nonparticipant observations (Table 3).

Our primary data collection method consisted of in-depth interviews with key actors. A total of 32 interviews were conducted: 7 in São Paulo, 13 in Rio de Janeiro and 12 in Curitiba. Our interviewees consisted of members of the government who were involved in the implementation of the platforms and citizens who actively used the platforms. We began the interviews with the coordinators responsible for the public policies in each city, each of whom had in-depth knowledge of the process. From these initial interviews, we began to understand the process of drafting public policies related to urban mobility and the role of e-participation in each of them. At the end of each interview, we asked the interviewee to indicate other relevant respondents who could provide information (members of the government and citizens who participated in the process), following a snowball logic (Miles & Huberman, 1994).

The interviews were conducted between October 2017 and May 2018 and lasted between 30 and 90 minutes each. All the interviews were recorded and transcribed, which resulted in approximately 430 single-spaced transcribed pages. We carefully selected our interviewees by following Stake's (2000) guidelines. Accordingly, for an in-depth case study, it is not the representativeness of a theoretical sampling that truly counts but rather the competence of the selected respondents. Respondents should be selected by their competence, knowledge and experience with the object of our investigation. In this vein, our team of respondents was able to retrospectively reconstruct the e-participation process with richness and depth.

We also collected 51 documents that were available on the platforms to understand the three cases better. The documents included (a) documents of reference, such as terms of reference and methodologies for drafting the urban

TABLE 2 Comparison of the three cases

	Case 1: Ágora RIO	Case 2: PDirect-CWB	Case 3: PlanMob-SP
Location	Rio de Janeiro, RJ	Curitiba - PR	São Paulo – SP
Population	6.5 Million inhabitants	1.8 million inhabitants	12 million inhabitants
Promoter of the platform	Municipal Secretary of Transportation (SMTR) and Lab.Rio	Institute for Research and Urban Planning of Curitiba (IPPUC)	Municipal Secretary of Transportation (SMT)
e-participation model	Deliberative platform	Deliberative platform	Consultative platform
Project beginning	December/2014	March/2014	October/2013
When the platform went live	January/2015	April/2014	February/2014
Period examined	2014–2016	2014–2017	2013–2016
Number of participants	2.775	316	7.600
Goal	Promote discussion and proposal of guidelines for the city's mobility plan	Search for ideas and proposals for the city's Director Plan and answer questions (clarify doubts)	Consult the population about the main demands for the city's mobility plan

TABLE 3 Summary of data collection

Case	City	Total	Interviewees		
			Government		Citizens
			Planning	ICT	
Case 1: Ágora-RIO	Rio de Janeiro	13	4	5	4
Case 2: PDirect-CWB	Curitiba	12	7	2	3
Case 3: PlanMob-SP	São Paulo	7	4		3
Total		32	15	7	10
Documents	51 documents, 317 posts, 285 responses to posts (forums), 382 proposals and comments posted on FEPs				
Observation	Observation of 12 hours of meetings				

mobility plans; (b) presentations of the urban mobility plans at public events or internal meetings, in addition to explanatory infographics; (c) workshop reports, diagnoses, minutes of meetings, etc.; (d) final reports and (e) other supporting documents, such as attendance lists and participation statistics. We downloaded 317 contributions, 285 responses and 382 proposals and comments posted on the e-participation platforms. We also observed meetings that the municipal government and community organisations organised to discuss urban mobility and that took place between September 2016 and January 2017. From these discussions, we were able to identify the reactions of the actors and the strategies adopted to influence public policies. Although the collection of these data does not conform to the netnography method, the data were so rich that we could capture the digital interactions between citizens and policy makers and therefore uncover the dynamics of e-participation. Data from the interviews, observations and documents were useful in discerning different points of view and making sense of the analysed

paths of participation. According to Stake (2000), the strength of triangulation is not convergence but rather an enrichment. These data provided a history of the process of implementing and using e-participation platforms.

6.3 | Data analysis

Our analysis was based on a process logic (Langley, 1999; Pettigrew, 1997) and sought to understand how and why events occurred and unfolded over time. We combined visual mapping (Langley, 1999) and coding techniques inspired by inductive theorising (Corley & Gioia, 2004). The data analysis was divided into the following two steps:

Step 1: Visual mapping. We examined the e-participation process of each platform (ie, a within-case approach) using the visual mapping technique (Langley, 1999). Visual mapping allows the simultaneous representation of several dimensions that can be used to show precedents, intermediate processes and outcome activities that occur over time (Langley, 1999). We developed maps according to the chronological order of the events extracted from the raw data. We aimed to gain a deep understanding of the e-participation process by perceiving and understanding sequences of events from the perspective of the actors involved in them. For each case, we examined the collected data and plotted the empirical data on flowcharts with the aid of Visio software.

After depicting the sequences of events, we noted that the interactions involving the actors suggested different paths. We divided the ordinates of the maps into horizontal bands, that is, one for each type of practice found: (a) actions for designing the platform (practices that create and design the platform), (b) mediations (activities related to mediating the technical and popular discourse) and (c) mechanisms of influence (elements used to create some form of influence on the process). As the visual maps were developed, we found multiple flows of activities connected over time. From these flows, we identified patterns. Across all these patterns, we determined that the e-participation process consists of three subprocesses or phases that we labelled as the design of the platform, the use of the platform and the consequences of the interaction. We also defined the e-participation process as a sequence of events unfolding over time in which government and citizens interact and mobilise resources through the platform.

The graphical representations (visual maps) were significant and provided details of how the e-participation process occurred in each case. After the maps were drawn, we identified the critical events in which power relationships were evident. We understood which strategies were used to maintain power over strategic decisions and how citizens attempted to influence the process. We drew over 20 visual maps. For reasons related to space, we cannot reproduce all of these maps here; however, they are available upon request. Figure A1 shows one example of these visual maps.

Step 2: Inductive coding. With the three cases charted on visual maps, we began a coding process inspired by Gioia's version of inductive coding (Corley & Gioia, 2004). To appreciate different types of resourcing, we identified first-order themes and grouped them into broader theoretical categories, that is, the second-order themes, which were then grouped into aggregate dimensions. We began our analysis by observing the sequences of events plotted in the previous phase and identifying phrases and terms provided by the informants, which we freely related to a first-order code (Corley & Gioia, 2004).

In the first round, after an analysis of all the cases, 22 free codes were found, which revealed the key elements of the meanings provided by the informants. In the second round, we performed a systematic analysis during which we continuously compared the data to group the first-order concepts into categories representing the emerging theoretical concepts and visualise the data at a higher theoretical abstraction level (Clark, Gioia, Ketchen, & Thomas, 2010; Corley & Gioia, 2004). After re-examining the categories and the alignments and overlaps, nine 2nd-order themes emerged.

In the final analysis stage, we gathered the nine 2nd-order themes into aggregate dimensions (Corley & Gioia, 2004). This process involved examining the relationships between first- and second-order concepts grouped into complementary categories and consolidating the themes into general dimensions of analysis.

This analysis continued interactively (moving between data, emerging patterns and theory) until the patterns were refined into appropriate conceptual categories while moving between the data and the literature, thereby analysing resource creation in practice (eg, Delgado, 2016). We used ATLAS.ti software to facilitate the coding process.

Regarding the quality of the research, the study is inspired by Stake's proposal regarding the construction of instrumental case studies under social-constructivist values and based on the criteria proposed by Lincoln and Guba (1985) for naturalistic inquiries, namely, credibility, transferability, reliability and confirmability. In addition to triangulating the data, we strove for in-depth involvement in the data collection and analysis by checking each item of information and returning to the field whenever necessary, using the interview protocols to boost the credibility of the research and developing the database, which can be reconsidered if and when the need arises. To ensure confirmability, we sought evidence that corroborates the meaningfulness of our findings in order to connect every excerpt analysed with the meanings of the interpretation. Regarding the generalisation of our findings, we sought transferability, that is, the extent to which the findings of a case can be transferred to other similar scenarios or contexts (Lincoln & Guba, 1985).

7 | FINDINGS

Across the two principal steps of data analysis – visual mapping and coding – resourcing as power emerged as an essential element of e-participation. In the next subsection, we present our results as follows: (a) we unveil the data structure that emerged from our inductive data coding, applied to the totality of our data; (b) we scrutinise each case separately to better emphasise the role of power in the e-participation arena of each case and (c) we present the results of our cross-case comparison using the different visual mappings and designing a new processual model, which is enriched relative to the first version.

7.1 | The three phases of resourcing: IN, WITHIN and OUT

We identified the potential resources that could turn into use during the e-participation process in FEPs to influence public policy. We introduced the concept of resourcing as power, which we illustrated herein by the government and citizens' use of resourcing to control different phases of the e-participation process. Municipal governments and citizens have a fundamental role in the use of resources to make citizens able to be heard and their ideas considered in regard to texts and decision artefacts. We identified different types of resourcing as power that we characterised as (a) resourcing IN, (b) resourcing WITHIN and (c) resourcing OUT. Figure 1 shows the emergent findings from inductive coding.

7.1.1 | Resourcing IN

This refers to using resources to influence practices in the phase of platform design. It is related to the power to influence the design of e-participation platforms. The government performs resourcing IN to define the coordination of e-participation and chooses the tools to be included in the platform, as well as the content. Therefore, it is an important source of power for shaping the trajectory of e-participation. Resourcing IN was found to be composed of the following four types of potential resources:

- *Making heterogeneous alliances*: This refers to assembling a network of partners and support that aids e-participation activities. An alliance is seen as a potential resource that, when put in use, affects the platform's design, establishes the rules and determines how broad the FEP will be. We identified two alliances: (a) that between urban planners and actors experienced in e-participation working for the government (hereafter named e-expert actors) and (b) that between urban planners and IT teams.

- *Acquiring autonomy*: This refers to acquiring political support and affirming the institutional role to gain autonomy in decision-making regarding the e-participation process. This autonomy, which is achieved by being in privileged positions, helps lead decision-making on the platform design. Depending on this resource's mobilisation, actors may occupy positions in the city hall and thereby facilitate the implementation of specific participation strategies.
- *Providing administrative support*: This refers to coordinating activities, promoting e-participation, overcoming the complexity of public administration, seeking financial support and dealing with the deadlines set by the government.
- *Translating technical to vernacular*: This refers to mobilising linguistic support to transform technical language into the vernacular. The municipal government 'translated' the technical documents so that all people who wanted to know more about public policy elaboration could understand the content. Citizens who can appropriate this content are more likely to influence public policy.

7.1.2 | Resourcing WITHIN

This is the use of resources by actors (government and citizens) to exert power during their interactions on a platform. It is related to the power to influence the use of e-participation platforms. The government and citizens consume and create resourcing WITHIN when participation is taking place on the FEP. We recognised resourcing WITHIN in the following situations:

- *Expanding technological access*: Understanding the use of technology can enhance or limit the interaction that will take place on the platform. Issues related to access, reach and digital space either create favourable conditions for e-participation or exclude participants and thus determine who will have a voice on the platform. Technology, especially the internet, can limit resource allocation and can be used by the government to defend its interests. It can also create new spaces for discussion. Such technology could act to increase or decrease participation.
- *Sharing knowledge*: This refers to sharing and recognising each actor's knowledge of FEPs. Identifying the different types of knowledge (technical knowledge, popular knowledge and collective knowledge) creates an environment that is propitious for forming relationships that influence policy formulation.

7.1.3 | Resourcing OUT

This refers to the use of resourcing enabled by the participation process, which results from the interactions on the platforms. Therefore, e-participation can generate new resourcing. We identified the following three types of resourcing OUT:

- *Establishing a sustainable relationship of trust*: This refers to generating new resources, such as trust or frustration.
- *Supporting public policy*: This refers to reaffirming government technical know-how through e-participation. Reflecting on e-participation in the final text of the policy provides legitimacy. Publicising the outcomes of e-participation creates legitimacy.
- *Learning collectively*: Generating learning through actors' interaction and recognising knowledge can alter the course of a new e-participation process.

7.2 | The analysis of power in each case

We presented how resourcing emerged in each case (see also Figure A2).
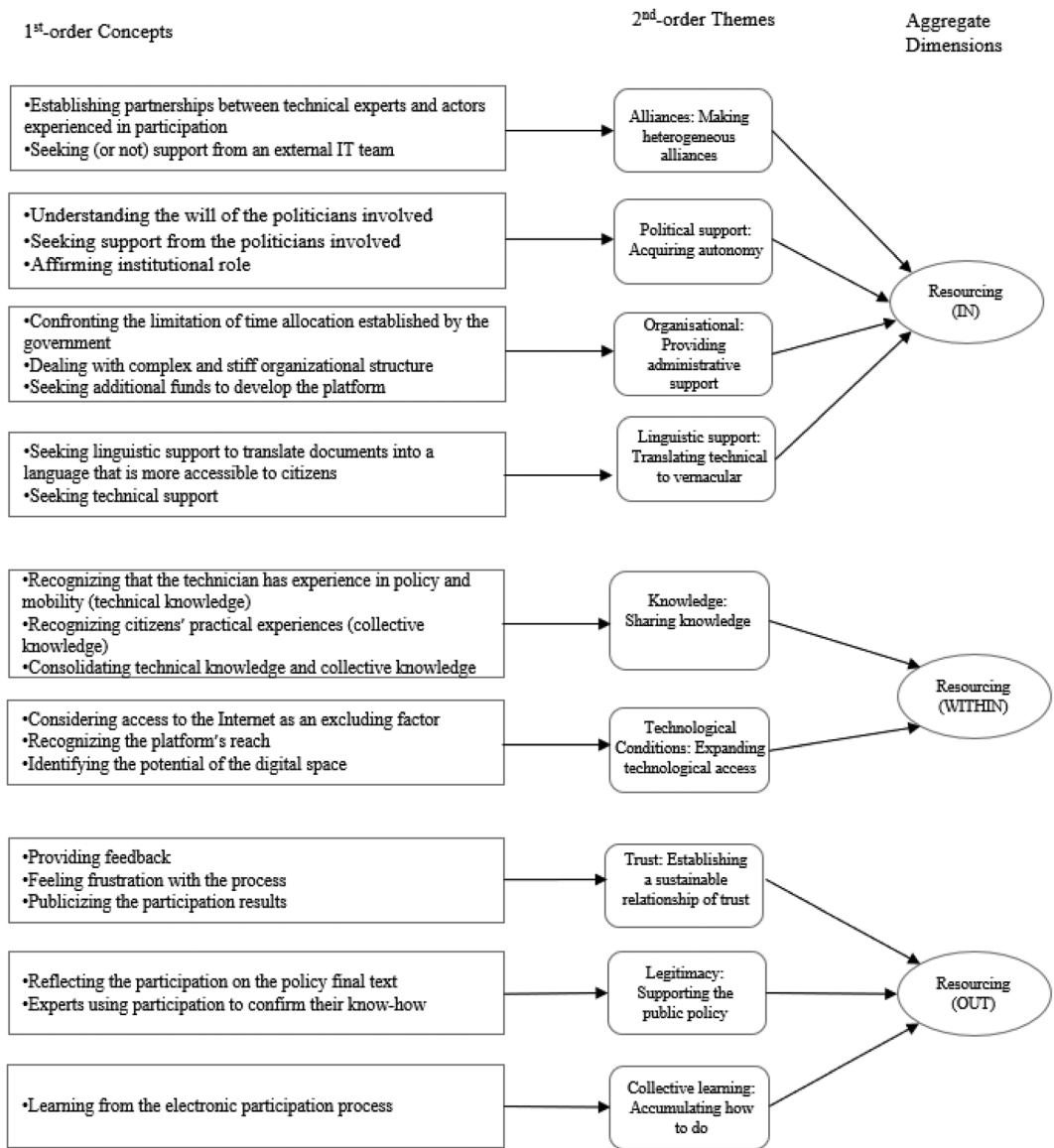
FIGURE 1 Inductive emergence of 'resourcing as power' concepts

7.2.1 | Ágora-RIO platform (Rio de Janeiro)

The Ágora-RIO platform was the portal used to discuss and propose demands for the city of Rio de Janeiro's mobility policy. Our analysis showed that the Ágora-RIO e-participation process (design, use and consequences) was affected by the power dynamics between different actors, that is, between urban planners and e-expert actors (government), between government and citizens and between citizens (active participants). The resourcing IN expresses these power dynamics, as identified in our analyses (Figure A2).

The e-participation process starts with the design of the platform, that is, the definition of the platform's characteristics, the choice of tools and planning activities involving e-participation. In this phase, the government proposes strategies for engaging citizens in the drafting of public policy. In Rio de Janeiro, the urban planners aimed to control

the decision-making and conduct this phase using internal resources (eg, existing platform, internal team). However, a meeting with e-expert actors led them taking another route. At this moment, a potential resource IN emerged, namely, *making heterogeneous alliances*. Urban planners and e-expert actors subsequently put into use this resourcing as a source of power when they decided to work together. One of the interviewees even referred to an 'astral conjunction':

> 'Therefore, there were several conjunctions. [...]astral conjunction. If you want to play alone, you won't do well, but you make life a lot easier if you are in astral conjunction. In addition, then we can work together'. (Technical expert 01; Ágora-RIO)

The alliance between urban planners and e-expert actors that formed at the beginning of the project was triggered by the intense interest of different groups in urban mobility and their potential in the platform. This alliance shared the platform design authority. The urban planners identified the necessity of e-participation, but they recognised their inability to conduct the process. Therefore, they transferred the design decisions to the e-expert actors, who then planned the dissemination strategies, the control of information and the access characteristics of the Ágora-RIO platform. Together, they decided to expand the spaces and opportunities for dialogue between the government and citizens. Those e-expert actors, namely, young and engaged teams, used *autonomy through political support* to create a platform with tools that allow interactions among citizens, thereby convincing people of the importance of participation. In planning the platform's design, the actors held a meeting with the mayor to make a compromise, that is, that citizens' suggestions would be analysed and incorporated into the plan.

The urban planners used financial resources to improve the participatory features of the e-participation platform, thereby *providing administrative support*. Brazilian local governments often face budgetary and financial constraints due to the constant economic crisis. Because investments were needed to develop and publicise the platform, they made efforts to obtain additional resources:

> 'You have to have resources not only to create these mechanisms and put them into practice but also in financial terms for technical, instrumental, and logistical issues'. (Technical expert 04; Ágora-RIO)

The resourcing IN that was mobilised to facilitate the platform design changed the power structure as the outcome of this phase. The actions between the urban planners and e-expert actors enacted conditions regarding the use of potential resources for citizens *interacting on the platform*. The Ágora-RIO platform design provided three moments of interaction. The first was to engage citizens; in the second, citizens could propose and discuss demands/suggestions on the forum with other participants, while in the third, citizens could vote on the proposals. The design of Ágora-RIO platform allowed citizens to put new resources into use to influence the second phase of the e-participation process, which is identified in our analysis as the use of the platform (resourcing WITHIN). The Ágora-RIO platform was opened to the public on 19 January 2015, and citizens could contribute to PMUS on the platform until August of the same year.

The use of such a platform requires resources such as time and access. While the internet makes it easier for more people to participate, it can restrict the reach of those who have no access to technology. By *expanding technological access*, citizens overcome limitations in terms of access to participation in the FEP. Access to and skills in using the system gives citizens more power in their interactions. For example, we observed that more articulated groups, such as activists, were the most engaged on the platform. On the other hand, we identified that citizens from the city's most impoverished regions did not participate on the Ágora-RIO platform.

Additionally, the technological environment promoted a digital space in which there were no 'marked chairs'. Citizens could participate, voice their opinions and engage in debates on the platform, thereby revealing themselves and attempting to be heard. Traditionally, the priorities for urban mobility policy in Rio de Janeiro have been dominated by powerful urban management actors who have a high power of influence due to their legitimacy over the

years. These actors are owners of transport companies, representatives of neighbourhood associations and representatives in the city council. However, the platform's use changed the power balance, as new actors became mobilised on the internet. Suddenly, everyone could speak, listen and be heard without time constraints and without asking permission to talk on the platform:

> 'The platform allows the opening for debates and defense even of your thesis. It is a democratic mechanism, the people feel they own it, they own it'. (Active participant 12; Ágora-RIO)

In this FEP, the interactions between participants enabled *sharing knowledge* and transforming personal knowledge into collective knowledge. This resourcing helped the recognition of technical and popular knowledge. Combining these kinds of knowledge provides citizens with the power to mobilise people around urban problems and bring them up for debate. We identified popular knowledge (gained through citizens' experience) as an essential power source to influence public policy. We perceived that the interaction between participants transformed this popular knowledge in the Àgora-RIO platform. Each citizen had their own interests and learned how to defend them when they began to participate in the platform. Taxi drivers, cyclists, walking, bus companies, etc., all shared and disputed within the same space to defend their cause. However, we found that these individual interests became collective as citizens interacted and debated among themselves. Therefore, when citizens used the platform, they combined their own knowledge with that of others to create new proposals. Following the debate, collective knowledge resourcing was redistributed and used to create a new public policy guideline.

> 'Before we talk, we can debate. I think this is the great benefit of the platform. Because if you have a platform where you type your idea, submit it, and then that's it, it doesn't make any sense. Now, when you have a comments section, you can respond, you can debate, add something [...] I think this is the great democratic construction of the thing. [...] It is great that you can have this interaction with people, either to criticize or to agree. [...] I think the process is a debate'. (Active participant 11; Ágora-RIO)

> 'There was a debate that generated many comments and ended up becoming a directive and helped to create some directives'. (Active participant 11, Ágora-RIO)

The overall effect of this resourcing WITHIN is to provide citizens with the possibility to propose changes, which promote conditions for citizens to use the potential resourcing debating *with other participants*. The platform had no government moderation, which stimulated discussion and collaboration among the participants. We observed the formation of leaders in the debates. Active participants became more influential on the platform. At the end of the debate, participants had posted 460 proposals on the Ágora-Rio platform.

The combination of resourcing IN and WITHIN used by the government and citizens created new resourcing OUT that influenced the third phase of the e-participation process, that is, the one where the consequences of interactions emerged. This phase included actions to decide which proposals originating in citizens' participation would be incorporated into the final text of the PMUS. Although citizens made proposals on the FEP, the government had the power to include the citizens' recommendations in public policy. However, e-expert actors created strategies to ensure that the PMUS reflected the citizens' involvement. First, they started a curation to analyse the 460 proposals technically and selected the 20 that could benefit the entire population. Urban planners and civil society representatives composed the curation team. Second, the team secured the mayor's commitment to include the citizens' participation in developing mobility public policy. To achieve this, the team scheduled a live event on YouTube with the mayor to comment on the 20 chosen proposals and to clarify the possibility of them being placed in the city's urban planning. Finally, the team transformed the citizens' requests and the curation's work into a text that publicised the participation.

Furthermore, e-participation on the Ágora-RIO platform not only created new resources, such as *establishing a sustainable relationship of trust* in the government, but also included some frustration over the loss of transparency.

Additionally, it enabled *learning collectively*. The heterogeneous alliances made allowed the creation of an ecology of knowledge that, in turn, allowed these heterogeneous groups to learn together:

> 'Managing citizen participation is hard. People who have experience in urban planning do not have experience with citizen participation. You do not study this at university, do you? You learn [...] The most important thing is to learn to work with citizen participation because it is not in our DNA'. (Technical expert 04; Ágora-RIO)

Because of interaction, resourcing was used in political action, *empowering citizens*. The government retained the decision-making attribution. However, urban planners, e-expert actors and citizens, acting on the three phases of e-participation, put potential resources in use to guarantee the presence of citizens' proposals in public policy. The citizens recognised their contributions to the FEP in the draft of the PMUS. There were 18 000 interactions on digital platforms, and 20 of the proposals were included in the public policy. One of them was proposing a new transport corridor, which complemented the 17 new corridors taken from internal technical reports. Therefore, we identified a strong influence on policy-making decisions and the visible empowerment of citizens.

7.2.2 | PDirect-CWB platform (Curitiba)

The PDirect-CWB platform was the FEP that allowed citizens to receive information and contribute electronically to the drafting of the Curitiba Director Plan review. The platform was conceived and developed by technical experts (urban planners). The PDirect-CWB e-participation process (design, use and consequences) was affected by power relationships between urban planners and IT teams (government) and between the government and citizens (active participants).

In contrast to the Ágora-RIO case, where resourcing IN was mobilised to enable a platform design that empowered citizens, in the PDirect-CWB case, resourcing IN was mobilised to guarantee control by the government. The urban planners *acquired autonomy* through institutional power. A law decree enabled them to draft the plan and control the platform's design. These actors managed the funding (the budget necessary to enable e-participation, such as expenditures on the platform and publicity development) and had specialised knowledge. As they had authority and control of the resources, they tended to centralise decisions regarding the design of the platform:

> In Curitiba, the administrative procedure to review the Director Plan was established by Mayor Gustavo Fruet at an event held at João XXIII Municipal School in March 2014. It fell to the Curitiba Research and Urban Planning Institute (IPPUC), empowered by Municipal Law 2660/65 and Municipal Law 11.266/2004, to coordinate and manage the process. (Doc DC01; PDirect-CWB)

Making a heterogeneous alliance with the IT team was a potential resource that could have been turned into resources in use, but it was not. The urban planners started a negotiation with the IT team to develop the platform, but there was no continuity. However, the urban planners could have allied but preferred to develop the platform internally:

> 'It was the IPPUC's understanding that the format that was used here was good, sufficient and with no need to make this effort'. (Public manager 04; PDirect-CWB)

As the outcome of this phase, resourcing IN was mobilised to limit the design of the platform. This included limiting the possibility of debate on the platform and restricting the dialogue in a one-way direction. The government had opportunities to design an interactive platform and enact the potential resources to *debate with other participants*. However, the platform design enabled citizens only to *post proposals*, such as a forum. For example, a citizen

accessed the platform, made a registration, chose a theme, declared his or her proposal and received government feedback about their suggestion.

We observed what resourcing emerged as a source of power in the second phase of e-participation (resourcing WITHIN). The PDirect-CWB platform was opened to the public on April 12, and participants were able to use the platform and interact with the government for 4 months. Our analysis of the second phase was concentrated in this period. The government reaffirmed the authority regarding the use of the platform. *Expanding technological access*, especially the internet, was used by the government to affirm its position and strengthen its technical knowledge. Citizens could voice their opinions on the platform, but interactions among citizens and discussion of proposals were not allowed. A technician responded to citizens' opinions and evaluated what would be forwarded for technical feasibility analysis and whether it could be incorporated into the policy. However, the digital space offered no privileged seats to be occupied and no predefined sequence for those who have a voice (Delgado, 2016). The citizens had the power to speak, hear and be heard on the FEP, without time constraints or the need for permission:

'You see that you are just as important as other actors because, regardless of who is posting, it will appear on the same server, in the same place [...] in a way, for a citizen who wants to participate. Perhaps it is even more interesting to post a contribution [on the e-participation platform] than to expose it in a physical space, where access to the room is usually privileged'. (Active participant 11; PDirect-CWB)

This position limits *sharing knowledge*. Curitiba has a well-known history of urban planning in the country and even internationally. The urban planners 'know what is best for the city'. The use of this knowledge reaffirms the government's authority over the process and shows that citizens' suggestions, whether or not they were included in public policy, must undergo a technical examination:

'The group sent them [ideas, suggestions] to the agencies responsible for drafting the plan so they could analyze what might be used, in part or even in full'. (Public executive 09, PDirect-CWB)

Citizens use debating with the government as a source of power. More than 300 suggestions left by citizens on the PDirect-CWB platform were computed. We identified that active participants used the platform as an exhibition channel. Even if they could not debate, they pressed the government on the causes they believed to be important. '*We were trying at the time to explore all possible channels*', says an active participant.

The combination of resourcing IN and WITHIN reinforced the mobilisation of resourcing OUTs into the third phase of e-participation. We considered that this phase was characterised by the analysis of the proposals and the decision about which proposals would be incorporated into public policy. The government used its formal authority to *support public policy*. Urban planners published a report presenting the results of participation. The publicisation of documents was a means by which to legitimise public policy. However, the connection between citizens' contributions and the final text of public policy was not clear, which generated mistrust in the process. The citizen who participated received a response, often seeming to be standardised:

'It has the return, but the returns are very standardized. Thus, we appreciate your contribution, which will be taken into consideration'. (Public manager 04; PDirect-CWB)

The participants found it challenging to relate e-participation with the final draft of public policy.

'Let's hear your proposals. If you take stock of the proposals, there were many. Rich knowledge was revealed during this process. Once again, what do we do with this? Where does it lead? I don't know. However, this was the exposure channel'. (Active participant 11b; PDirect-CWB)

Although the government centralised the decisions, the citizens exerted some influence through their presence on the platform. To overcome the less favourable position, citizens used potential resourcing, thereby *exposing themselves* as a mechanism of power to influence public policy. We identified the actions of leaders recognised by the government who began to contribute in person. For example, the government invited civil society representatives to discuss bicycle paths, sharing transportation and public transport.

7.2.3 | PlanMob-SP platform (São Paulo)

The PlanMob-SP was created exclusively to present information related to the São Paulo City Urban Mobility Plan to the population. Similar to the PDirect-CWB case, the PlanMob-SP e-participation process (design, use and consequences) was affected by power relationships between the urban planners and the IT team (government) and between the government and the citizens (active participants).

The mobilisation of resourcing IN influenced the power relationship in the design of the platform. The urban planners were nominated by an ordinance to conduct the drafting of PlanMob/SP (376 Ordinance). These experts had the institutional power and political support to lead the e-participation process. Because they had authority and resources, they tended to centralise decisions regarding platform design. Urban planners conceived the FEP without funding or support from the São Paulo Municipal ICT Company. *Making heterogeneous alliances* represented a potential resource that was not put into use. The failure to use potential resources limited the platform design, which determined the conditions for technological access, as illustrated by an urban planner:

> 'We were able to build an interactive platform and create an interactive space. You could put up a text, write a new essay, post your opinion; in short, the mobility plan did not have this platform. [...] the technical IT support [...], the department doesn't use it [...], it could be using it a lot more than it does'. (Technical expert 01; PlanMob-SP)

Potential resources at the beginning of platform design could not be turned into use, which limited the mobilisation of resources for the use of the platform (resourcing WITHIN). As in the PDirect-CWB platform, the PlanMob-SP platform limited the interaction between government and citizens. However, the platform design permitted us to inform the population about PlanMob/SP and conduct a survey on urban mobility. The survey was conducted from 27 February 2015 to 13 April 2015, on the PlanMob-SP platform. The urban planners elaborated the electronic questionnaire with questions that raised opinions about public transport, walking mobility, cycle mobility and cargo transport. More than 7500 participants answered the survey. Access to the platform was open to the entire population with no restrictions. However, anyone who did not have the *information* or *access to technological* resourcing could be left out (digital divide). Simultaneously, the internet enabled more citizens to participate and reaffirm the power structure. The urban planners needed to ensure that e-participation was not dominated by groups that did not represent the population:

> 'Our problem here is a lack of access to the internet. Not everyone has access, quite the opposite. Therefore, you cannot say that in this way, it is a democratic tool. Now, it is a tool. Otherwise, we are making a Greek democracy, which we cannot do'. (Technical expert 04; PlanMob-SP)

The FEP did not permit interaction between the government and citizens. Neither did it allow the sharing of knowledge. However, the government transfers power to citizens by *recognising demands*. The main results of the survey showed that the participants rated the sidewalks very poorly, used public transportation as their principal way of transport and thought that the internet was the most efficient channel for exchanging information between the government and citizens.

The combination of resourcing IN and WITHIN resulted in some support for public policy (resourcing OUTs). According to the local government, there was expressive participation on the platform, which guaranteed the policy's legitimacy. The results of the survey were useful for *supporting public policy*. The survey provided clues to guiding investments in technical decisions about the priorities of urban mobility, as pointed out by one of the interviewees:

> 'I think it is important to show that some problems, some solutions that we point out regarding mobil-
> ity, are already part of citizens' lives, were already there, in fact, I think it ends up making the plan
> stronger'. (Technical expert 01; PlanMob-SP)

Urban planners use e-participation to legitimise public policy and recognise citizens' main demands. Although the PlanMob-SP platform consulted citizens, it also established a *sustainable relationship of trust*. e-Participation enabled participation through the relationship of trust formed between government and civil society. For example, the government invited walking and cycling representatives to collaborate in person with urban planners to draft PlanMob-SP:

> 'The construction of this draft of public policy [about cyclists and the pedestrians] was done together
> with us. Of course, many things were not quite what we wanted, but it has our DNA. The DNA, of
> society'. (Active participant 02; PlanMob)

Because of these three phases of the e-participation process and the resourcing mobilised by the government and citizens, it was not possible to identify a direct influence on public policy through e-participation. However, the government recognised some citizens and invited them to participate in-person to influence the PlanMob-SP formulation.

7.3 | A cross-case comparison: A process model of resourcing as power

Our analysis shows the crucial role of resourcing in FEPs. Influence on public policy-making is related to different actors' ability to mobilise and transform potential resources into resources in use (Feldman, 2004; Quick & Feldman, 2011), to involve and engage more citizens in the participation process. More than resourcing itself, the issue of *how those resources are employed triggers changes in power dynamics, affecting governments' and citizens' relationships*. New resources are created and redistributed based on interactions between participants on the FEPs. These interactions affect how citizens exploit opportunities to overcome barriers that are imposed upon them – such as government authority, the difficulty of accessing the platform and technical knowledge (Cegarra-Navarro et al., 2014; Medaglia, 2011) – and thus influence pub-lic policy-making. We summarise the three cases regarding the possession and practice views of power in Table 4.

Our comparison of the three cases suggests that the mobilisation of the four potential resourcing INs early in the process seems crucial to creating a favourable condition in which to design an FEP that overcomes the challenge of effectively engaging citizens in e-participation. The outcomes depend on the actors' interaction and how they mobilise potential resources and (re)distribute them over time. At the start of the e-participation process, govern-ments have the power to decide and tend to influence outcomes through their authority, legitimacy or control of resources on which others depend (possession view). However, the power balance is transformed during the process. It is also crucial for a group or individual to gain power through resourcing; this view helps us understand how citizens can exploit opportunities to surmount positions that are initially viewed as having little in their favour (practice view).

TABLE 4 Comparison of the three cases

Power	Case 1: Ágora-RIO	Case 2: PDirect-CRTB	Case 3: PlanMob-SP
Possession view	*Formal authority*	*Formal authority*	*Formal authority*
	Shared between urban planners and actors experienced in participation	Exercised by urban planners to enforce decisions	Exercised by urban planners to enforce decisions
Practice view	*Resourcing IN*	*Resourcing IN*	*Resourcing IN*
	Potential resourcing put in use to guarantee the creation of a platform that allows interactions between participants. Efforts are shared in the design of the platform and the planning of the participation process	Institutional power used to not form alliances (potential resourcing). Efforts centered on technical experts to create the platform, plan the process and inform the citizens	Potential resourcing is not turned into use, and efforts are centered on technical experts
	Resourcing WITHIN	*Resourcing WITHIN*	*Resourcing WITHIN*
	Put in use to ensure a space for interaction and debate between participants on the platform, creating an ecology of knowledge	Put in use to moderate participation in the platform and reinforce technical knowledge	Potential resourcing not put into use, and the platform allows consulting and informing the citizens
	Resourcing OUT	*Resourcing OUT*	*Resourcing OUT*
	Used to preserve citizens' rights and legitimise the process. Potential resources put into use (alliances, political support) and the interactions between actors create resources that allow learning	Used to legitimise public policy	Used to legitimise public policy and to identify citizen demands

After integrating the findings and comparing them with the literature, we propose a process model of resourcing that explains how potential resources might be mobilised as a source of power on e-participation platforms (Figure 2).

The model shows how government and citizens use potential resources to create favourable conditions to influence public policy through the e-participation process. Our analysis shows the interplay between different resourcing as a source of power, as well the e-participation phases. We identify three main phases of the e-participation process, namely, the design of the platform, the use of the platform and the consequences of e-participation. These phases allow us to understand the power dynamics by using resources in each phase of the e-participation process across the three cases we investigated.

Resourcing influences the e-participation platform design (resourcing IN), creates interactions between actors in action (resourcing WITHIN) and is involved in the consequences of e-participation interactions (resourcing OUT). The dynamics of resourcing help explain how participation on the platform produces different outcomes (Figure 2).

First, Figure 2 suggests that the potential resources could be turned into resources in use over the process, which shapes the power balance between government and citizens; this affects the influence of citizen participation in policy-making within each case. Our analyses show that *acquiring autonomy through political support* and *making heterogeneous alliances* (resourcing IN) shape the design of the platform. These resources are essential sources of power used to decentralise decisions regarding the platform's design and coordinate the collaborative process, which
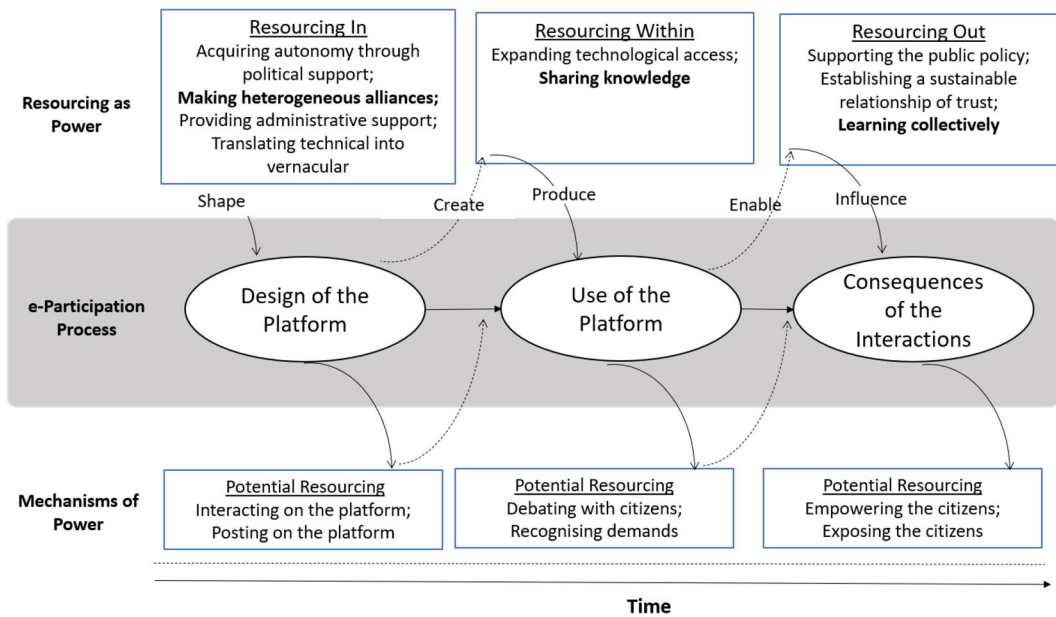
FIGURE 2 A process model of resourcing as power

illustrates how specific resources can be mobilised to produce new forms of action (Howard-Grenville, 2007). Alliance formation is not mandatory, but it is a potential resource recognised in all cases. However, its mobilisation (turning potential resources into resources in use) depends on the government's interests. Another critical resource used to influence a platform's design is political support. By gaining autonomy, the actors achieved greater power of persuasion, and they did not suffer from major interference in decision-making, as shown in the Ágora-RIO platform case.

The mobilisation of resourcing IN facilities the creation of new resources on the use of the platform (resourcing WITHIN). We show that on deliberative platforms, citizens mobilise resourcing WITHIN, such as consolidating different types of knowledge and using digital spaces to gain credibility and be heard by the government. In a consultative platform, expanding technological access is the only kind of resourcing WITHIN that is mobilised. It is important to note that *sharing knowledge* is the most important source of power during the use of the platform. We observe that the government determines the rules and conditions to decide about the formulation of public policy. In sum, it has the power to decide what guidelines will be written in the draft of public policy (urban mobility guidelines) and can use its knowledge to reinforce its opinions. Our findings demonstrate that more influential movements occur when there is a convergence between technical and popular knowledge, which creates an ecology of knowledge. In this sense, citizens influence participation by mobilising their knowledge. One of the three cases, namely, Ágora-RIO, provides an example in which citizens create opportunities to debate in ways that produce original knowledge that influences many decisions. These citizens make collective knowledge about the needs of the population that is transformed into guidelines to be incorporated into public policy when discussed with the government. Thus, citizens' power is associated with particular potential resources, such as specialised knowledge to debate on the platform.

The combination of resourcing allows the production of new resources, which, when put into use, can alter the structures of power and generate *learning collectively* (resourcing OUTs). Learning occurs when urban planners assume that they do not have sufficient knowledge about the FEP and decide to share the coordination of the process with e-expert actors. Additionally, this combination of resourcing IN and WITHIN provides opportunities to engage citizens in a way that produces trust and legitimacy for public decision-making. In this vein, the government

and citizens, by understanding which potential resources are valued highly during the e-participation process, create conditions that shape the influence on public policy, empower citizens or maintain government power decisions.

8 | DISCUSSION

We analysed the power dynamics between the government and citizens concerning the nature and consequences of citizens' participation in FEPs. We noted that the e-participation literature has not often discussed the power and that few authors have discussed this point from a possession view. We argued that understanding power could help design and implement FEPs that are more inclusive, thereby ensuring more autonomy and empowerment of citizens within a democratic system. The government and citizens use resourcing as power to change the e-participation nature and promote distinct consequences in citizens' influence public decision-making.

While the few e-participation studies that focus on power use a possession view (Ainsworth et al., 2005; Åström et al., 2011; He et al., 2017; Purdy, 2012; Svensson, 2011), we took a more holistic approach, including a practice view. We analysed power from the lens of resource mobilisation (resourcing as power). Our study developed a process model that shows resourcing in different phases of the e-participation process and the influence on public policy-making.

Public decision-making is influenced by actors' interests and actions, which have pre-established roles (Hardy & Phillips, 1998). Over time, however, the actors act in different ways to be able to influence the process. The most powerful actors usually control the participation process (Åström et al., 2011), and this power can be used to influence decisions that involve the inclusion and exclusion of participants in the discussion (Elliman & Taylor, 2008; Purdy, 2012). For example, the government uses FEPs to facilitate communication with the citizen, but it dictates the rules and limits the spaces for discussion on these platforms. Additionally, dominant actors can even ignore other citizens (Ainsworth et al., 2005; Svensson, 2011). We demonstrated that less-powerful actors (those without resources, voice or legitimacy) could be left out of the participation. However, these individuals can create movements to be included and empowered. It is essential to understand the use of resources to change the relationship between the government and citizens on e-participation platforms to influence decision-making. The relational view of power manifested through resourcing used and/or created is useful to explore how interactions change over time (Feldman & Quick, 2009). We identified and described the kinds of resourcing IN, WITHIN and OUT that are required to implement FEPs, and we explained why resourcing can change the nature of participation and how citizens can overcome barriers to influencing public policy-making.

8.1 | Implications for the e-participation literature

Our theorising provided three relevant insights and implications regarding the e-participation literature. We reinforced that the interests of actors influence the e-participation process, especially the government that controls the FEP (Åström et al., 2011; He et al., 2017; Wagner et al., 2016). We also showed how the government uses resourcing IN to change the power structure and create conditions to empower citizens. Finally, we demonstrated that the existence of an e-participation platform is not enough to empower citizens in public policy decision-making. Knowledge sharing, that is, the formation of what we call an ecology of knowledge, increases the reflection of e-participation to influence public policy formulation. While the relationship between knowledge and power is already well studied in the literature on IS (eg, Marabelli & Newell, 2014; Pozzebon & Pinsonneault, 2012), it remains a subject to be addressed in the e-participation literature.

Our findings reinforce that the government has the power to control the consequences of e-participation through formal authority and the control of resources (Åström et al., 2011; He et al., 2017; Wagner et al., 2016). This is already established within the field. In FEPs, the government has the authority to control the process by setting

the rules in the initial stages of e-participation. Our contribution relates to exploring how the interests and actions of the actors involved influence the e-participation process. The government has the power to open or close the participation process (Ainsworth et al., 2005; Purdy, 2012; Svensson, 2011), to determine whether to include actors or ideas in public policy-making and to control the information flows. However, increased citizen participation might decrease governmental power (Wagner et al., 2016). Active but disadvantaged participants might influence the political process through legitimacy that grows out of their practical knowledge of urban mobility; *we show how* this can occur. More important than investigating who has authority in FEPs (Purdy, 2012) is understanding how actors obtain advantages or negotiate in practice. The resourcing cycle used in different phases of the e-participation process shows how urban planners, e-expert actors and citizens act in their attempt to influence policy. The interaction between the different actors can influence power dynamics through the resourcing (re)distributed in practice (Howard-Grenville, 2007). We argued that these power dynamics help us understand the nature and consequences of citizens' influence on the formulation of public policies.

Our results also showed that the e-participation platform design depends on the nature of the alliances that are formed and political support, which are promoted by the political interests of the social actors involved. It is not new to find that the selected platform design affects participation and the global outcome of policies (Gaventa & Barrett, 2012; Janowski et al., 2018; Zissis et al., 2009). However, the infrastructure must provide citizens with essential resources to guarantee their contributions (Porwol et al., 2018). We advance in this sense by observing that the way resourcing IN is put into use (Feldman & Worline, 2012) determines the negotiation of the platform's design and interferes with the outcome of participation. For instance, the government can use its institutional power to avoid putting alliances into use and thus obtain greater control over participation on the platform, thereby reinforcing its interests. On the other hand, it can use resourcing to share decision-making and create more interactive platforms where citizens can discuss, create their own rules and build proposals collaboratively.

Finally, we argued that the creation of an ecology of knowledge is essential for empowering citizens. Our study suggested that influencing public policy-making depends on transforming knowledge on the e-participation platform. Despite being well explained in studies on IS (Marabelli & Newell, 2014; Pozzebon & Pinsonneault, 2012), the relationship between power and knowledge remains in the early stages within the e-participation literature. Future studies might explore these research avenues in other contexts.

8.2 | Implications for the power and resourcing literature

We integrated the concept of resourcing as a constitutive element of relational power. Actors exercise power to influence the outcome of a decision and encourage the desired behaviour through their authority and/or through the use of critical resources on which others depend (Hardy & Phillips, 1998). It is essential to understand who controls critical resources and how. Urban planners have the power to define the participatory process that controls information flows. Power relations thus become entrenched and are difficult to change. However, interactions between actors can influence power dynamics. We transferred the focus from the power possessed at the beginning of the process to the new roles of power created and redistributed in practice.

Our study complements the understanding of the practice view of power (Marshall & Rollinson, 2004) by addressing power using resources (Delgado, 2016; Howard-Grenville, 2007). We have analysed resourcing as power, in which actors identify potential resources and use them to maintain power structures or promote change. Through their interactions, actors could understand the e-participation platform's practices over time, thereby activating the resource cycles that influenced public policy-making. Therefore, power is not only something that is acquired, possessed or attributed to one person; rather, it is constituted through interactions between actors (Feldman & Quick, 2009; Howard-Grenville, Metzger, & Meyer, 2013). We have thus indicated how resources turned into use can provoke changes in three phases of e-participation. The government exercises power through its formal authority and resource control; however, when it opens an FEP, new resources are created and used. These resources, such

as heterogeneous alliances and political support, create new configurations of resourcing that can change the power balance. To maintain control, the government puts new resources into use, including technical knowledge. Once the space for interaction has opened, these actors have an increased ability to create new resources through interaction, such as the consolidation of different types of knowledge. Resourcing promotes different outcomes and alters the power structure. Resourcing is also used to create mechanisms, encouraging the redistribution of new resources that provoke changes, thereby increasing citizens' power of influence.

Our findings contribute to the literature on resourcing (eg, Feldman, 2004). We have presented three phases of resourcing as power: *resourcing IN*, *resourcing WITHIN* and *resourcing OUT*. We have discussed previous studies that have emphasised the value of looking at the different types of resources linked to the different practices and their effect on one another (Delgado, 2016). We have shown that different resources are created during the development of FEPs and during interactions on the platforms and their outcomes. We have thereby made advances to the extant contributions (Delgado, 2016; Feldman, 2004; Feldman & Quick, 2009; Howard-Grenville, 2007; Wiedner et al., 2017) by reinforcing the understanding of how different practices contribute to the creation of new resources and how these resources provoke changes that alter power structures.

8.3 | Implications for practice

Our findings have two practical implications for e-participation platform developers and public administrators. First, our findings can be used to propose improvements in the development of platforms to strengthen the relationship between governments and citizens. All the resourcing practices identified in our model should inspire practitioners to improve their strategies. For instance, the recognition and consolidation of technical and collective knowledge are important for promoting broader opportunities for participation. We identified the existence of technical knowledge (government specialists' knowledge of engineering, architecture and urban mobility), which can be used to legitimate governmental authority over public policy. On the other hand, we also identified popular knowledge provided by active participants' experiences as an important source of power. Technical and popular knowledge differ even in terms of language, and this should be recognised. The acceptance of these differences and the recognition of the importance of combining them provide an opportunity for greater interaction between governments and citizens to create mechanisms that facilitate interaction and dialogue between citizens who possess such knowledge.

Second, our study provides public administrators with the understanding that resource possession is a source of power and elucidates the importance, in terms of outcomes, of how these resources are mobilised and put into use in the design of a platform and the interactions on it. The dynamics of how specific participatory action functions are impacted not only by the possession of resources but also by how these resources are used. Moreover, less-powerful actors may use resources in a way that allows them to exercise power and influence public policy-making or that generates learning for future actions. Government agencies are expected to identify social issues, process data and effectively use information. Furthermore, our findings can benefit the monitoring of policy execution in collaboration with citizens.

8.4 | Limitations and future research

In our study, some limitations need to be considered. One of these limitations is that because our study is retrospective, it was impossible to monitor the platform's use in real time. The use of retrospective interviews was fundamental to understanding and reconstructing the steps of the e-participation process. Additionally, we had access to all the data exchanged on the platforms. However, monitoring e-participation platforms in real-time could allow the

inclusion of perspectives that could not be captured in this study. Additionally, our work shows that the use of resourcing throughout participation practices and its influential movements can alter the outcome of e-participation in public policy enacted by governments. However, aspects of the individual role, such as the role of political entrepreneurs, on the innovative outcomes that occur in public administration were not considered.

This study focusses on government e-participation platforms at the strategic and municipal levels. We did not analyse the duality of the nature of e-participation, which involves the government management of the platforms and the spontaneous actions of citizens using social media platforms (Porwol et al., 2018). Given the limitations of our study, future studies could examine the actions and resourcing mobilised by citizens in different social media contexts. They could also explore the influential movements that arise in social media (Miranda et al., 2016) and how they are reflected in the drafting of public policies. Future research could also use netnography to observe power relations and mobilise resources during e-participation and explore other types of platforms. Comparative results would provide further support for the theoretical construction of e-participation platforms and power.

9 | CONCLUSION

Based on our analysis of three cases, we have increased our understanding of how power influences the nature and consequences of citizens' participation in FEPs. By examining three platforms in major Brazilian cities (PlanMob-SP in São Paulo, Ágora-RIO in Rio de Janeiro, and PDirect-CWB in Curitiba), we have identified the process by which government and citizens use resourcing as power to influence public decision-making.

Based on retrospective and comparative case studies, we have identified how power is exercised – from a combination of the possession and practice perspectives – to construct influential moves in practices of participation. Our findings show that different actors exert power on such platforms not only through the possession of critical resources and formal authority but also in the three phases of resourcing, namely, *resourcing IN*, *resourcing WITHIN* and *resourcing OUT*. As resources are created and (re)distributed in practice on e-participation platforms, participation occurs and influences public policy-making changes. Furthermore, the mobilisation of certain types of *resourcing IN*, such as those preceding participation in the platform, including the formation of heterogeneous alliances and the search for political support, increases the final influence on public policy-making. The consolidation of technical and popular knowledge in interactions on the platform (*resourcing WITHIN*) is a source of power that influences the outcome.

Our process model enhances the understanding of the use of resources as a source of power. Participation practices generate resources that actors mobilise to create moves that provoke changes in the platform's design, the actors' participation and the outcome of their participation. The use of these resources (*IN*, *WITHIN* and *OUT*) generates changes in the participation process and in the mechanisms used to influence public policy. The interplay between the use of resources and the mechanisms of influence causes changes that, over time, are reflected in the outcomes of the e-participation platform, thus generating legitimacy, influencing public policy and contributing to learning.

DATA AVAILABILITY STATEMENT
Data available on request due to privacy/ethical restrictions.

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ENDNOTES

[1] https://desafioagorario.crowdicity.com.

[2] http://www.curitiba.pr.gov.br/planodiretor.

[3] http://www.prefeitura.sp.gov.br/cidade/secretarias/transportes/planmob/.

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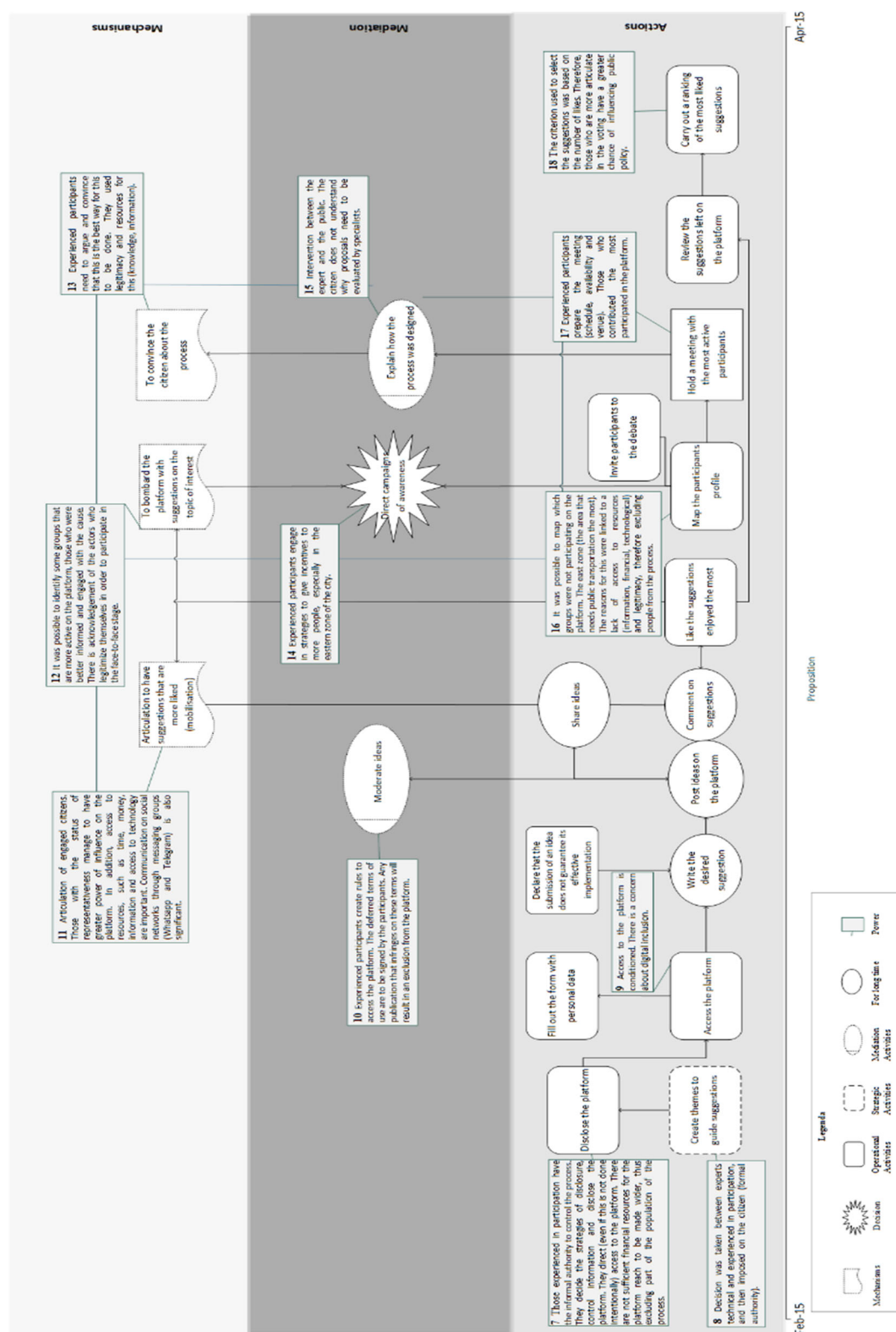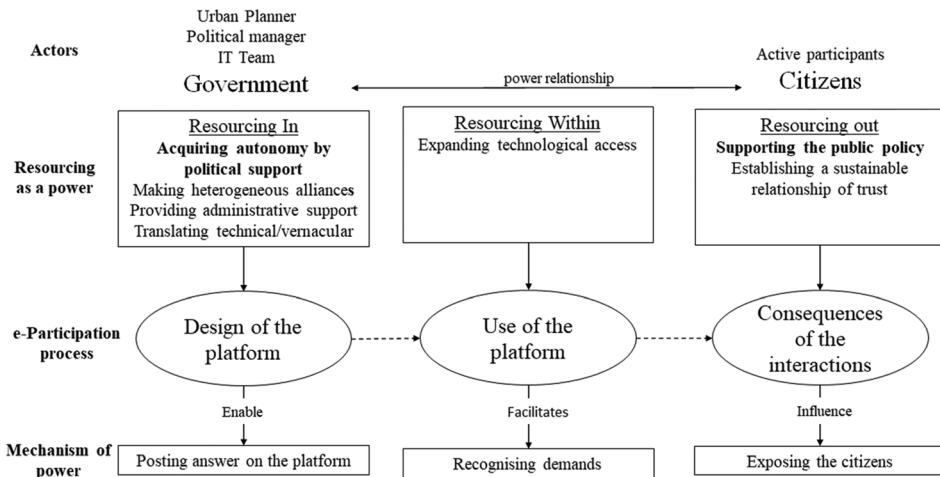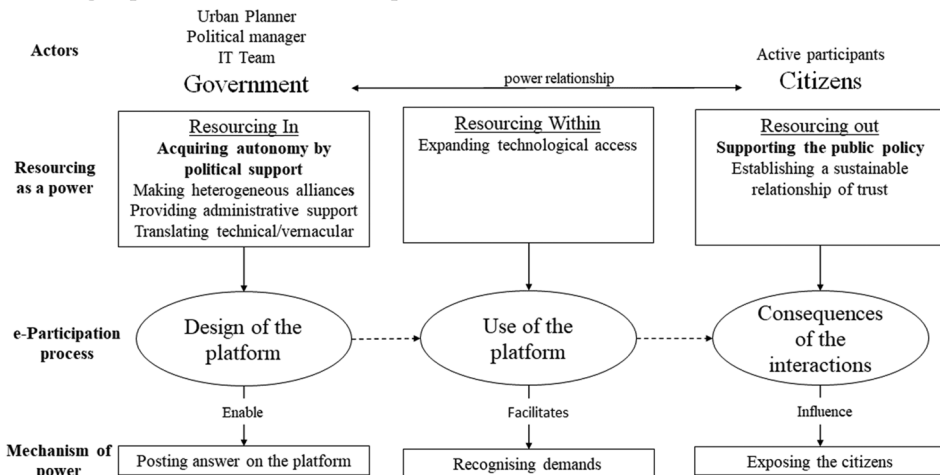
FIGURE A1 Visual mapping illustration

Resourcing as power in the Agora-RIO platform
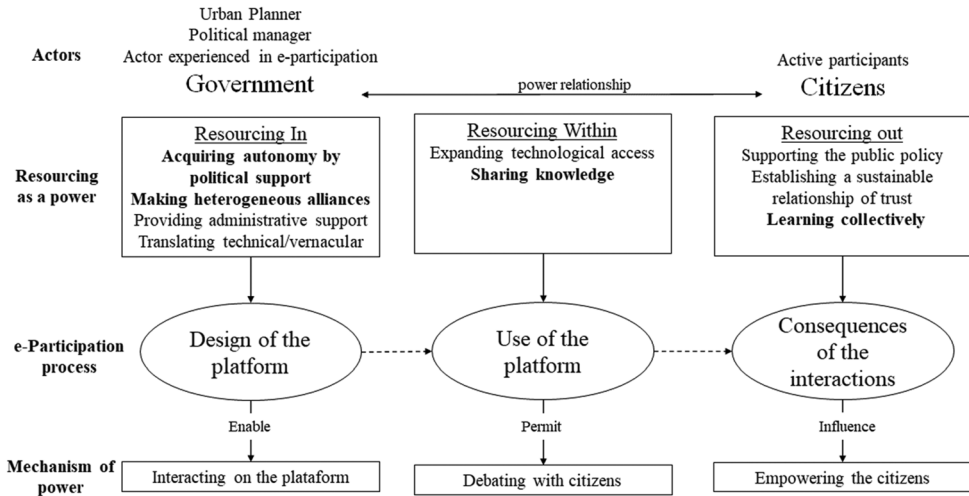
Resourcing as a power in the PDirect-CWB platform

Resourcing as power in the PlanMob-SP platform

FIGURE A2 Resourcing as power in each case