




Bridging the gap between “the platform society” and technopolitics — a systematic literature review about digital democracy platforms

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Abstract

The subject of digital democracy platforms has gained interest in recent years, driven by the surge of online participation mechanisms provided by political parties and governmental institutions as a response to declining rates of interest in more traditional forms of political engagement and demands about democratic reform. However, several case studies cast doubts about the capability of such platforms to result in meaningful political change and effectively pushing the boundaries of representative democracy.

To synthesize the most recent scientific contributions to this topic, a systematic literature review was conducted to analyze research published in 2023 about the contributions of digital democracy platforms for political participation, their impact on democracy and the variables that influence their implementation and adoption, ultimately leading to their successes or failures. 125 articles were collected to have their findings analyzed.

The conclusions of this systematic literature review suggest that digital democracy platforms decrease the costs of participation and facilitate the escalation of participative initiatives for larger numbers of citizens without the spatial and temporal constraints of analogue forms of participation. However, these platforms face a diverse set of obstacles. Most users are from more affluent socioeconomic backgrounds and the lack of informal institutionalization, or willingness by lawmakers to prioritize citizen inputs to participative governance, leads to rarely effective changes in policymaking.

Keywords: Digital democracy; Online platforms; Platformization; Political participation; Systematic literature review.

Introduction

In the wake of van Dijck, Poell and de Waal's (2018) declaration that the "*The Platform Society*" was the next transformation of the internet, there has been an increasing interest in how our economies and daily activities are increasingly mediated by digital platforms — mobile applications, websites or software that are essentially programmable digital infrastructures intended to coordinate user interactions, including those between public and corporate entities as well as end users, designed to collect, algorithmically process, distribute, and profit from user data.

Along the advancement of the platformization of the market economy, news media, and public services, there has also been a growing attention to the phenomenon of digital democracy platforms, which are

similar digital services aimed at enhancing political participation, organization and collective decision-making. Many political parties such as Podemos in Spain, the 5-Star Movement in Italy, Syriza in Greece and the German Pirate Party have come up with a plethora of such platforms for average party members to engage in internal referendums, online deliberations, to vote on party candidates or to propose new political orientations and activities to be adopted by the party. This has given rise to a phenomenon Gerbaudo (2019) describes as "*The Digital Party*". This apparently new typology of political organization branches into two variants: the platform party, which tends to fail on enhancing participation by merely using technology to further advance the elitist tendencies of the cartel party, and the networked party, which seeks to decentralize leadership and break away from the typical vices and boundaries of older parties, but has so far experienced limited electoral and popular expression (Deseriis, 2020a).

Beyond party politics, digital democracy platforms are now commonplace in many other contexts. When geared towards the government, these exist as institutionalized participation tools for initiatives such as online petitioning, top-down popular consultations, online participatory budgeting and online voting (Aichholzer & Rose, 2020). These institutionalized platforms' scopes can range from regional, to national or even international, as demonstrated by the European Citizens' Initiative platform.

Social movements have also had a role in the development and popularization of digital democracy platforms for autonomous collective organization and decision-making. As a matter of fact, it was precisely the technopolitical and hacktivist dimension of the Indignados movement in Spain, inspired by the decentralized and horizontalist cultures and practices of free software and grassroots social movements, that would eventually lead to the creation and later institutionalization of Decidim, one of the most popular digital participation platforms, used in more than 450 places throughout the world (Barandiaran *et al.*, 2024).

With these developments in mind, this paper aims to answer the questions of how exactly have these platforms contributed to participation, what has been their impact on democracy and what factors have predicted both successful and unsuccessful cases. This paper also aims to contribute to solidifying the place of the research on technopolitical platforms in the literature about the overall impact of platformization on society, which have mostly focused on the market, communication, social networking, news media and public services. Regarding methodology, these goals were sought by employing the systematic literature review and bibliometric analysis methods.

For this purpose, I rely on van Dijck, Poell and Waal's (2018) definition of the online platform as "a programmable digital architecture designed to organize interactions between users — not just end users but also corporate entities and public bodies (...) geared toward the systematic collection, algorithmic processing, circulation, and monetization of user data" (p. 4). Online political participation is understood in this research with a basis on Aichholzer and Rose's (2020) definition as "the use of digital tools for political participation" including "a wide variety of formally institutionalized mechanisms, as well as informal expressions of civic engagement" (p. 93).

The literature is diverse when it comes to assessing the characteristics of digital participation, with a focus on procedures such as exercising agenda-setting power, deliberation and voting, functions such as monitoring policymaking and involvement in decision-making and the outcomes of specific participatory processes, which, depending on the level of power-sharing between social actors, can be categorized as minimalist or maximalist participation (Deseriis, 2023; Choi, 2016; Carpentier, 2016). Digital democracy platforms deal with all of these dimensions across a variety of different ways — some are geared more

towards conceptions of direct, deliberative, participative or representative democracy, while others follow a more hybrid approach. For example, in some platforms citizens can create online petitions, in others they might be asked to participate in public consultations, in others they might vote on political candidates or proposals and others might be used to organize collectively.

It should be emphasized that the focus of this systematic literature review are these specific online platforms dedicated to political participation and digital democracy. It should be stated that this approach excludes research about participation that solely focus on social network and media sites or applications such as Instagram, Facebook or X (formerly known as Twitter). These platforms remain a relevant topic for the research on online and hybrid political participation. However, since most of their usage in politics is geared towards campaigning and asymmetrical top-down communication, they differ from *ad hoc* digital democracy platforms designed exclusively for participation and collective decision-making such as Decidim, Consul, Rousseau or Liquid Feedback, which Deseriis (2023) qualifies as the decision-making software of the second wave of digital democracy conceived accordingly to the techno-utopian narrative of enhancing participative democracy through the internet.

The rest of this paper is structured as follows: first, there is a theoretical reflection about the state of the discussion surrounding digital democracy and the contributions of online tools for political mobilization and their impact on society; second, the methodology and strategy applied to fulfill the established research goals is depicted in detail; third, a bibliometric network of keywords for the research analysed is presented to ascertain the main patterns and tendencies in the discussion surrounding digital democracy platforms; and fourth, the most relevant findings from the systematic literature review are discussed, followed by a conclusion.

The state of digital democracy and technopolitics

Digital democracy is a concept rooted in old expectations concerning the alleged democratizing potential of novel technologies of information and communication, which predate even the World Wide Web itself, as exemplified by the “teledemocracy” promises that surrounded the rise of cable TV in the 1980s (Berg & Hofmann, 2021). Similar claims were made about the adoption of older technologies and innovations such as the telegraph, radio, cinema and television (Hacker & van Dijk, 2000; Katz *et al.*, 2001; van Dijk, 2006). In spite of the modernization of institutional democracy and the rise of a digital public sphere, doubts persist about the democratizing affordances of the internet, which is not an ethereal place disembodied from the structural inequalities and power imbalances of capitalist societies (Asenbaum, 2021).

In this scenario, after studying parties whose organizational practices were highly structured around the internet, such as Podemos and the Five Star Movement, Gerbaudo (2019) established that the digital party is a new form of political organization that mimics the logic of digital companies, growing rapidly while adopting data-driven decision-making and flexible organizational structures. The digital party is also a general term that encompasses some of the political parties that emerged in the aftermath of the Great Recession economic crisis and the introduction of Web 2.0. Through an often populist rhetoric critical of the alleged decrepitude and oligarchization of representative democracy, these parties use digital platforms to appeal to a section of the electorate composed mostly of high educated urban millennials who are very savvy regarding the internet but also economically precarious and politically marginalized, described as the

"connected outsiders" (Gerbaudo, 2019). This technopolitical dimension in digital parties is particularly salient not only regarding the intense usage of mainstream social media and network platforms but specially through the creation of their own dedicated online decision-making platforms that are supposed to allow party members and supporters to participate directly in party decisions, emphasizing participatory democracy and pursuing the premise that participationism may serve as an antidote to the ills of traditional representative democracy.

However, the rise of the digital party has also garnered criticism and controversy. Despite appearing as a novel alternative to older forms of politics, many digital parties have depicted a questionable innovative nature, since they exhibit organizational practices and dynamics that are similar to those of traditional cartel parties, which were characterized by personalized leaderships enhanced by mass communication and not infrequently relied on methods such as polling to monitor public sentiment and internal consultations through mail-in internal referendums (Deseriis, 2020a). We much ask, therefore, if these recent practices enhanced by the internet are effectively transforming democracy and participation or merely modernizing paradigms that already existed before without any democratic impact. As a matter of fact, digital parties have thus far been incapable of substantially reversing the growing lack of interest in political party affiliation. It has been noted that the "virtual" civil society, although capable of enhancing sporadic mobilizations, has failed at establishing long-term political change without the simultaneous presence of a strong "conventional" civil society, not serving as a *de facto* replacement for it, a common problem in autocratic or formerly autocratic societies (Beissinger, 2017).

In parties such as Spain's Podemos and Italy's 5-Star Movement, the use of digital democracy platforms failed to produce political outcomes that challenged these parties' leaderships, often because of restrictions on bottom-up initiatives and demands defined by these parties' elites (Deseriis & Vittori, 2019). This is the symptom of a paradigm pointed in Hacker and van Dijk's (2000) seminal work on digital democracy — the resistance to change and the aversion to a presumable loss of power from bureaucracies and career politicians, a paradigm prone to prompt antidemocratic responses from established players in the political system. E-governments and digital parties might rely on online platforms to collect data for the aim of influencing political outcomes or strengthening the position of a centralized leader (Deseriis & Vittori, 2019). Rather than empowering common citizens by allowing them to circumvent the limitations of liberal representative democracy, the allure of a techno-populist direct democracy mediated by digital technologies might instead create an hyper-representative leader possessing even more knowledge and power thanks to this centralized collection of data (De Blasio & Sorice, 2018). Instead of democratizing democracy, digital democracy platforms might be instead used, at least in some cases, to divert attention from undemocratic practices or tendencies (Deseriis, 2020b; Jiménez & Curto-Millet, 2023; Manazir, 2023).

The case of Podemos particularly serves as a paradigmatic illustration of this contradiction (Deseriis & Vittori, 2019). Podemos has been defined in the literature as a left-wing populist party driven by a highly mediatized leadership (Sola & Rendueles, 2017) and as a "party-movement" (Nez, 2017) rooted in the Indignados protests, which emphasized a radical critique of representative democracy. Regarding its technopolitical dimension, it has also been described as a digital party (Gerbaudo, 2019) and as a platform party (Deseriis, 2020). It sought to embody its era's claim for democratic renewal by adopting what appeared to be horizontal and participatory forms of decision-making enhanced by the internet, eventually implementing its own dedicated platform for internal participation and decision-making. But this dimension of the party, rather

than delivering on its promise of democratic innovation, was instead often used to sideline internal critics and strengthen its small circle of leaders, which framed issues in a format that encouraged online voters to support predetermined agendas, eventually hampering internal democracy and contributing to the internal crisis that led to the downfall of the party (Brown, 2024).

Deseriis (2020) further established that the digital party branches into two variants: the platform party and the network party. Platform parties, such as Podemos and the Five Star Movement, operate with a centralized hierarchy, typically under the guidance of a compelling leader, and employ digital platforms to engage members through controlled, top-down interactions, primarily for electoral purposes. This approach, although it suggests increased member engagement, frequently leads to a form of participation that is reactive and plebiscitary, with the leadership maintaining substantial control over the party's agenda and decisions. Conversely, network parties, such as the Pirate Parties of Sweden, Germany, and Iceland and the Spanish X Party, prioritize decentralization and the empowerment of their members by using digital tools to enable bottom-up decision-making and collaborative agenda setting. In this model, leadership is distributed, with roles determined by individual contributions and expertise rather than hierarchical appointments. Unlike its counterpart, the network party also aims to integrate both offline and online participatory methods, fostering a hybrid form of engagement that seeks to enhance internal democracy and scalable deliberation. However, networked parties have not achieved a significant level of electoral expression compared to other digital parties and some of their features have an experimental nature that is not yet fully refined.

Beyond party politics, the techno-utopian ideal behind digital democracy is similarly challenged by a digital public sphere marked by increasing political polarization. The theory of the echo-chamber or filter bubble, which has been dominant in explaining the phenomenon of online polarization, claims that the civil political discourse required for healthy deliberative democracy tends to be cut short by the algorithmic mediation of social media platforms wired to profit off the attention and data of users, in a paradigm Baldi (2018) described as *dataveillance*, a practice which tends to favour the amplification of inflammatory controversial rhetoric and disinformation as a mean to generate engagement. This problem is not disconnected from the power imbalances in the platform ecosystem between average users and the big tech giants such as Meta, Google and X Corp., which, through their large capital and the data driven power of untransparent algorithmic mediation, can model the rules and the exceptions to the debate in the digital public sphere (Martins Rosa *et al.*, 2017).

However, the truth is that as much as there was a conflict between the hopeful and the skeptical regarding other technological advancements in the past, the same can be said about the debate surrounding the internet and politics, which has been marked by a duality between the cyberpessimistic and the cyboptimistic perspectives (Cardoso *et al.*, 2005). Therefore, this reflection would not be complete without a reference to more positive signs, providing a balanced assessment.

For an instance, the networked communication model of the network society, roughly defined as the everlasting dialogue between different layers of mediated communication combined with the mass self-communication affordances of the modern-day internet (Cardoso, 2023), where audiences are also participants, has shown democratic potential in enhancing political mobilization and participation in contentious politics. A commonly alluded to example is the centrality and protagonism of online social networks during the Arab Spring uprisings, which allowed loosely coordinated groups of contentious actors, with weak ties, to connect and band around common objectives, a phenomenon described as the "logic of

connective action” (Bennett & Segerberg, 2012). Digital resources can also be used to bring social visibility to overlooked groups and for the co-creation of a collective identity (Santos Moura & Baldi, 2020), conditions that are valuable for citizen participation and mobilization.

Several works about the protest cycles that emerged after the 2008 financial crisis and against its austeritarian political responses also enlightened how digital tools were important instruments for horizontalist organizational efforts, enhanced mobilization and were used to challenge the dominant frames in public opinion and in the media (Cardoso *et al.*, 2017; Accornero, 2017).

In summary, acknowledging the diversity of uses of the internet, with examples of both positive and negative outcomes for society and politics, means we should avoid promoting a general manicheist or monolithic vision of it. The impact of the internet in politics and democracy is still an ongoing construct through the interactions and struggles in a complex network composed of its average users, corporations, civil society organizations and politicians. As pointed by Berg and Hofmann (2021), digital democracy is a contested and mutable reality, subject to emerging political and sociotechnical struggles and reconfigurations, which possess the potential to either aggravate or mitigate existing inequalities.

More recently, the literature on digital democracy shows an increasing focus on topics such as inclusion and fairness concerning marginalized communities (Helbing *et al.*, 2023). Research on participation platforms can therefore provide insights into the reconfigurations that might improve their contributions to democracy and democratization.

Methodology

A literature review is an essential step in any scientific investigation because it provides a thorough grasp of the topic under investigation by identifying previous relevant research, assessing the methods used to study the research subject, and identifying important questions in the literature (Bryman, 2012). This step helps to map and evaluate the gaps in the literature about a giving topic, thus making the researcher more knowledgeable and better prepared to make empirical work in that field.

The systematic literature review, on the other hand, is a method that follows very specific, predefined criteria, rules and procedures in the collection, selection and analysis of literature, a process documented step by step, so that it can be easily replicated (Booth *et al.*, 2012). One of the benefits of the systematic literature review compared to the narrative or “non-systematic” review is that the systematization helps prevent the risk of bias by forcing the researcher to be confronted with literature that might challenge or contradict previous assumptions. When carried out correctly, this process has a small margin of error and can produce trustworthy results that help researchers make well-informed decisions.

A technique that is frequently related to the systematic literature review is meta-analysis, which uses statistical techniques to compile information from related studies and draw conclusions that could lead to more accurate estimates on the research subject. According to Moher *et al.* (2015), a systematic literature review and the associated meta-analysis procedure must include elements such as a clearly defined research question and objectives to be addressed, a strategy to yield the necessary search results across the targeted databases, the evaluation of the quality and validity of selected studies and the methodical presentation and summarization of the data extracted.

This systematic literature review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method, also known as the PRISMA methodology, a highly regarded approach for identifying, evaluating, and synthesizing studies (Page *et al.*, 2021). This method helps access recent and relevant literature while reducing potential bias. It involves searching scientific databases with specific keywords, refining results for review. Automated steps involve removing duplicates, older items, and those not meeting certain criteria, leading to a more focused list. The researcher then assesses titles, keywords, and abstracts, compiling available studies without targeting specific ones.

Defining search terms

This systematic literature review aimed to answer the research questions of how digital democracy platforms contribute to political participation, what has been their impact on democracy, and what are the factors that lead to these platforms’ successful implementation or lack thereof. It also had the objective of collecting insights useful for decision-making in projects related to the development of digital democracy platforms and for future research on the topic. The guiding criteria I used for article selection include:

- 1. Nature of the study: articles must be rooted in empirical research or relevant theoretical discussions;
- 2. Language: articles must be written in English;
- 3. Research topic: studies should investigate digital democracy or e-participation platforms and mechanisms;
- 4. Scientific areas: studies should be positioned within the social sciences, sociology, communication studies or related fields;
- 5. Date of publication: the studies should have been published in the year 2023, thus representing recent scientific contributions and developments concerning the research topic.

Articles that satisfied these requirements were considered relevant and integrated into this analysis.

Search strategy and PRISMA methodology

The search was carried out in November 2023, focusing on articles aggregated in the Scopus and Web of Science databases. The articles provided by the search terms and criteria were extracted to Zotero, a bibliographic management software.

To execute the research equation, the following parameters were applied within each database with a careful use of boolean operators, as depicted in table 1 below:

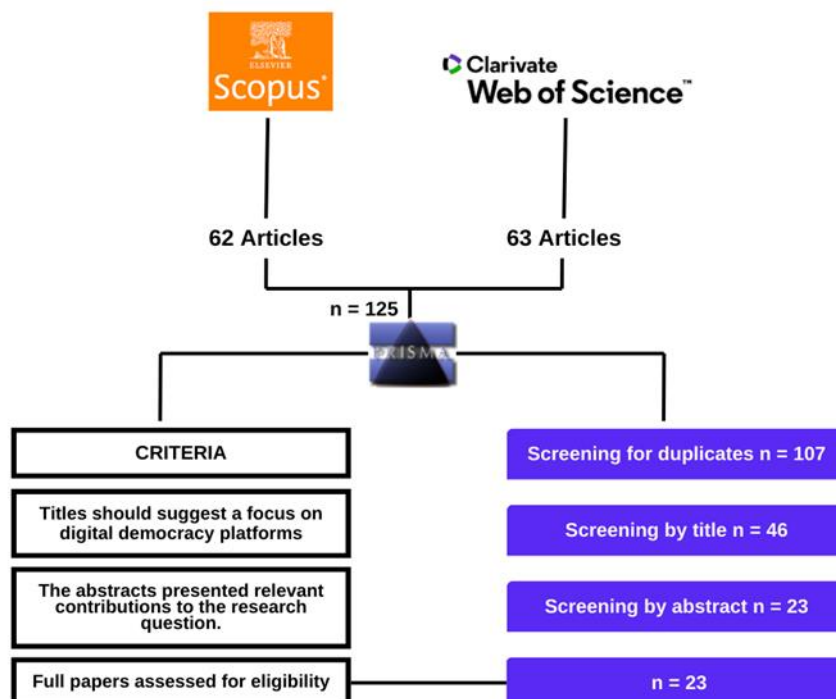
Table 1: Research equations per database

Database	Research equation	Results
Scopus	TITLE-ABS-KEY ("platform*" OR "application*" OR "online petition*" OR "e-petition*" OR "digital petition*" AND "political participation" OR "e-participation" OR "online participation" OR "digital participation" OR	62

	"digital democracy") AND (LIMIT-TO (SUBJAREA, "SOCI")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (PUBYEAR, 2023))	
Web of Science ¹	(TS=("platform*")) OR TS=("application*") OR TS=("online petition*") OR TS=("e-petition*") OR TS=("digital petition*") AND TS=("political participation") OR TS=("e-participation") OR TS=("online participation") OR TS=("digital participation") OR TS=("digital democracy") AND (LIMIT-TO (DOCTYPE, "ar"))	63

The PRISMA methodology was adopted to analyse the references found in the research databases of Scopus and Web of Science. The search for scientific articles within these databases identified a total of 125 articles. Upon the removal of 18 duplicates, 107 articles remained for further selection, based on their titles and abstracts. This final screening then yielded 23 articles for a further detailed analysis. This process is depicted in figure 1 below.

Figure 1: PRISMA Workflow diagram for conducting systematic and bibliometric research, elaborated by author, adapted from Page *et al.*, (2020).



¹In this search the results were also refined by applying filters using the Web of Science categories: Communication, Political Science, Social Sciences Interdisciplinary, Sociology, Social Issues and Public Administration.

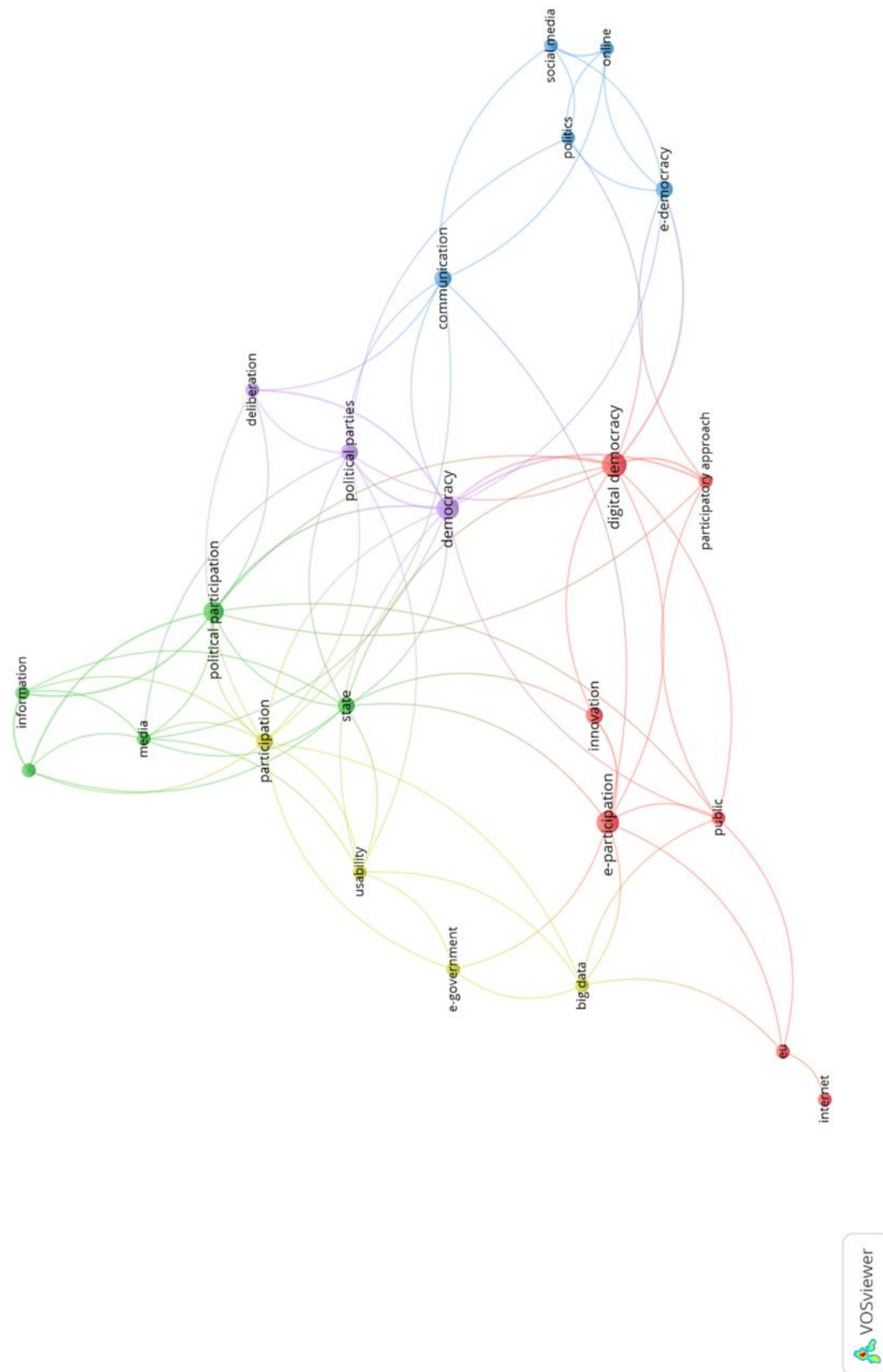
Keywords analysis

To further expand on the contributions of the research on digital democracy platforms included in this systematic literature review, a visualization of its bibliometric network is depicted in this section as a mean to map out the currently most relevant topics for the study of the platformization of digital democracy and discover the most underdeveloped areas which might benefit from further work.

Visualization of bibliometric networks offers several positive contributions for research (van Eck & Waltman, 2014). It helps researchers to comprehend the evolution of complex bibliometric data more easily by representing relationships visually, facilitating the identification of patterns, trends, and connections within research that may not be apparent from raw numbers or text. It is also an effective way of communicating research findings to a wider audience, including stakeholders, policymakers, and the general public.

In recent years, VOSviewer, has emerged as a software tool for visualizing bibliometric networks (van Eck & Waltman, 2014). VOSviewer automatically assigns nodes in a network to clusters, which are sets of closely related nodes. Each node is assigned to exactly one cluster, and the number of clusters is determined by a resolution parameter. Different colours are used to indicate the cluster to which a node has been assigned. This research tool was utilized to map the relationship between research keywords, as seen in figure 2 below.

Figure 2 – Visual bibliometric network of keywords by VOSviewer



Keywords related to political participation and digital democracy were the most relevant, with stronger links and more co-occurrences across the greatest number of articles, surpassing in this regard keywords related

to e-government and the state. This suggests there might be an increasing focus on studying digital democracy with a focus on participation and beyond the mere modernization of governance.

Although social media platforms were not the focus of this analysis, it is observable that one related keyword still remained relevant nonetheless, suggesting the topic might still hold value for research on e-democracy as a whole. As claimed in one of the papers analyzed (Kopacheva, 2023), most mobilization related to initiatives in digital democracy platforms happens with the sharing and dissemination of information concerning these initiatives in other online platforms such as social media sites, which explains why these still appear relevant in this network of keywords, despite not being the focus of this systematic literature review. In this regard, digital democracy initiatives appear to flow across the networked ecosystem of platforms and the digital public sphere. Initiatives such as online petitions, even when they are created through a specific digital democracy platform, are not just participative instruments, they are also communicational content to be shared and published across the platform ecosystem by the participants in the networked mode of communication.

On the other hand, keywords related to accessibility, inclusivity, innovation and performance showed weak links, suggesting these topics might be underexplored. These are precisely some of the elements that emerged as the weaknesses of digital democracy platforms, such as the absence of access and inclusion in the cases of marginalized and peripheral communities and the lack of solid user-feedback mechanisms as a mean to evaluate the performance of these platforms (Jiménez & Curto-Millet, 2023; Manazir, 2023). Research on digital democracy platforms could potentially benefit from further work on these topics.

Findings from studies and discussion

In this section, the main qualitative findings from the detailed analysis of the final list of articles included in this systematic literature review are discussed. It was verified that most of these studies fell into one of two thematic categories: governmental digital democracy platforms and intra-party digital democracy platforms.

Governmental digital democracy platform

Both institutional and non-institutional e-petition platforms now exist in most democratic societies. Parliamentary platforms, for an instance, are meant to serve as a direct channel with representative democracies, with certain requisites requiring a formal response from institutional political actors. However, these platforms suffer from the same problems as other forms of political participation — most participants tend to be from more affluent socioeconomic classes, with higher levels of academic education and already prone to political mobilization (Matthews, 2023). The participatory processes enhanced by these platforms have rarely resulted in direct political change and have frequently left citizens with negative perceptions of procedural fairness, as lawmakers are expected to hold little regard for initiatives such as e-petitions. As a matter of fact, Jiménez & Curto-Millet, (2023) and Manazir (2023) warn against sensationalist narratives that promote e-participation as a cure for most societal problems, when in fact powerful actors might use the rhetoric of ‘false participation’ to cover or legitimize other agendas. Besides, the fact that signing an online petition is an act with a negligible cost of participation or commitment has dubbed it as ‘slacktivism’,

a low-effort form of political engagement which might appease psychological needs without bringing meaningful change or promoting other forms of offline participation (Ginzburg, 2023).

Nonetheless, the case empirically studied by Matthews (2023) appears as an exception and challenges these previous assertions, concluding that e-petitions can still reveal useful signs to lawmakers about public opinion, which might provide an “anticipatory effect” on policymaking. These can also be useful even when policy change isn’t directly enacted by entailing a range of spillover effects that stimulate other political actions and public awareness about particular issues. This study also challenges the perceptions of “slacktivism”, concluding it is possible for the aggregation of low-cost individual actions across these platforms to construct a positive contribution.

The implementation of governmental online participation services appears to have strengthened the discursive power and political influence of common citizens in the dialogue with political institutions (Feng *et al.*, 2023). However, in respect to e-petition platforms, the prospect that any citizen can easily launch and promote an online petition can create a burden which might hamper the capacity of political representatives to issue timely responses, which tend to take longer when petition texts are larger or filled with more negative emotions and polarizing terms. This is explained by the fact that governmental actors need to understand how to carefully deal with these instruments while avoiding the threat of public outcries and keeping discussions with citizens grounded in rationality. However, the risk of “selective response” and frustration can damage petitioners trust, motivations and perceptions of procedural fairness, a particularly salient problem in authoritarian or semi-authoritarian countries (Kopacheva, 2023). To mitigate these problems, governments should invest in the political education of citizens to increase the quality of their participation, decrease bureaucracy among different branches of government and invest in qualified staff to support the administration of these participatory initiatives and platforms (Feng *et al.*, 2023).

Digital democracy platforms are increasingly reducing the costs of political participation, facilitating the efforts of citizens who propose their own law making initiatives and scaling them to larger numbers of potential participants. However, this also creates a problem for both citizens and lawmakers, who have to make decisions with an increasing abundance of political inputs — a problem conceptualized as the burden of decision, which platforms have tried to solve by implementing so called “second-order decisions” (Deseriis, 2023). Examples are filtering opinions and defining consensus through algorithms or implementing functionalities such as allowing users to nominate temporary delegates to make decisions on their behalf. This is an expression of the tension between political representatives and civil society actors trying to balance the management of democratic processes while making them more egalitarian and inclusive. From a sociotechnical perspective, it should be emphasized that technological design is not neutral. Therefore, the success of an e-participation platform is influenced by the democratic affordances embedded in its technological design and the use-level norms like those defined by formal rules such as legislation or statutes.

Still in the matter of e-petitioning, Ginzburg (2023) adds that this instrument constitutes a form of participation with the potential to reach a fairly significant amount of people, usually larger than traditional analogue petitions. Successful e-petitions are those that reach a certain exogenous threshold of signatures required for a formal response from political institutions. Mass media coverage is usually a signal for policymakers to become particularly concerned with a specific petition and, as pointed by Kopacheva (2023), the mobilization for these low-cost online activities is prominently enhanced by information sharing on other

platforms, such as social network and media sites. This flowing back and forth between the social and the mass media cements online petitions' place in the networked mode of communication.

Besides factors such as education and citizenship norms, e-petition signing is significantly influenced by emotional narratives and social cues, such as the popularity of petitions, quantified through the visible number of signatures, similarly to likes on social media posts (Porten-Che   *et al.*, 2023). The design of platforms' interfaces must minimize any confusion or frustration that might potentially disengage citizens and avoid favouring disparities between the more and less knowledgeable or privileged users (Tseng, 2023). For these purposes, it is important that organizations invest in methods for properly evaluating the usability and inclusivity of digital democracy platforms (van den Berg *et al.*, 2023).

According to Borucki and Hartleb (2023), participation through online platforms can be a vital part of the adaptation of democratic institutions to modern societal developments, with the aim of reinforcing democratic participation. The development of e-voting for understudied and underlooked groups of voters, such as expatriates, can increase turnout of such groups, although there is a lack of a universally agreed and established "toolbox" or legal framework for the implementation of such instruments. However, although e-voting is appealing to young and cosmopolitan citizens, obstacles persist for the implementation of such platforms, such as doubts related to problems of trust and acceptance, legal and constitutional issues, adherence to secure and efficient technical standards and the impacts of the digital and sociotechnical divide. Online participation platforms hold the possibility of easing citizens' involvement in decision-making processes and enable two-way communication between citizens and political representatives without the limitations of space and time, but the implementation of such platforms has often lacked in matters of adoption by the general population. According to Huda and Amin (2023), factors that predict a positive intention of citizens to use e-democracy platforms are: 1. personal perceptions of satisfaction, trust and usefulness towards the platform; 2. the confirmation of personal expectations towards the participatory process; 3. the availability of resources to support understanding how to use the platform and circumvent obstacles; and 4. facilitating conditions such as easy availability of telecommunication infrastructure. On the other hand, the social influence of peer groups is a variable that seems to have no palpable positive impact on the intention of the majority of citizens to use e-participation platforms. Calzati (2023) also emphasizes that low levels of e-participation are often explained by the discrepancy between the expectations and efforts of citizens.

The likelihood of adopting e-participation platforms has been depicted in literature as being influenced by factors such as a region's size, wealth, socioeconomic development, governmental competition and the appeals and incentives from authorities or political leaders (Legard *et al.*, 2023). However, these variables do not predict adherence to different degrees of e-participation. The degree of e-participation in platforms can be defined as a spectrum ranging from the mere consultation of citizens (non-binding deliberation) to their actual inclusion in decision-making processes, when they get to participate in effective decision or policymaking (Legard *et al.*, 2023). These discrepancies in the degree of democratic participation opportunities available for citizens through digital democracy platforms are usually decided by political leaders in a top-down dynamic. These are also the outcome of factors such as fluctuating levels of political trust, circumstantial civil society demands and mobilizations, economic or political crisis, the rise of new parties or political alliances, the level of institutional discretion, the strength of institutional defenders and the resources available to agents of political change.

Infighting among different political actors inside the same organization responsible for developing and implementing a digital democracy platform can also be a catalyst for failure. In the case of Decide Madrid, a municipal e-participation platform created by the Ahora Madrid political party after winning local elections, the implementation proved ultimately underwhelming because of clashes between institutional and non-institutional actors, for the political alliance that sustained the platform was composed of distinct factions with contradicting philosophies (Jiménez & Curto-Millet, 2023). On top of that, older institutional actors in the Madrid municipality preferred an inflexible approach based on short-term results to managing the platform, which hampered the project's ability to experiment and learn with new practices and ideas. Another debility was the fact that most users were more affluent and college educated, while marginalized communities such as the Romani people did not use the platform at all.

Other approaches to analyse the success or lack thereof of online participation platforms focus on digital divide problems, which advocate that rather than simply expecting new technologies to solve problems, we must focus on the cultural and social aspects surrounding them (Manazir, 2023). E-participation platforms are still not inclusive enough towards more marginalized groups, which implies that sociopolitical exclusion might be reproduced on the internet. The accessibility and value gained from these platforms tends to differ across individuals from different socioeconomic backgrounds and characteristics. These platforms should be made as open and interactive as possible and also incorporate solid user feedback mechanisms.

Moats and Tseng (2023) argue that for digital democracy platforms to succeed in representing citizens' real opinions and promote rational deliberation, these should organize users' positions on topics as a spectrum and not frame debates as polarizing binaries or grouping users in this fashion. Platforms should manage decision-making with quali-quantitative methods, which favour more pluralistic worldviews, and not rely exclusively on quantitative data. Users should also be given the option of changing position on a given topic over time.

E-participation allows the enhancement of citizen participation in collaborative governance, but it is not enough to merely implement technological innovations. The efficacy of e-democracy also depends on less technical issues such as data privacy, digital literacy, trustable technology, smooth procedural guidelines, legal-ethical frameworks and motivations of citizens towards participation (Pinto *et al.*, 2023; Calzati, 2023). A human centric approach to digital democracy must take into account the economic, historical, cultural, sociological and geographical contexts where it is implemented.

Randma-Liiv (2023) similarly concluded that the mere adoption of digital democracy platforms does not automatically alter policymaking. To truly succeed, a platform must not only be formally institutionalized, but also informally institutionalized, which requires a change in the ideas, values, and wills of political leaders over usually a long period of time. Other than sociotechnical obstacles, institutional obstacles are particularly relevant, which means organizational change is an important dimension for the success of a digital democracy platform.

Digital democracy platforms also reduce the costs of participation by allowing citizens to express their own opinions to the government without necessarily having to join a civic association or a similar organization (Fanta & Soběhart, 2023). Consistent updates with error corrections are required for enhancing user-friendliness, which has only seldom occurred with platforms managed by governments as opposed to privately developed platforms. E-democracy projects should be managed with continuous attempts at innovation, learning and adaptation (Calzati, 2023).

Intra-party digital democracy platforms

Before developing this section further, it should be remembered that, according to Deseriis (2020a), building on the concept of the digital party proposed by Gerbaudo (2019), the political parties that implement platforms without effectively expanding upon the logics of traditional intra-party democracy can be defined as “platform parties”, which use platforms to merely modernize older practices that already existed in some cartel parties. On the other hand, the networked party, the more democratic, participatory and innovative variant of the digital party, functions according to distinct organizational principles such as non-exclusive membership, decentralization, bottom-up division of labour, collective agenda-setting, hybrid participation and scalable deliberation. Overall, none of the cases contemplated in this paper adhered to these principles and seem closer to the network party’s less innovative counterpart, the platform party.

Concerning the findings of this systematic literature review, Lupato & Meloni (2023) reinforce a conclusion already prevalent in the digital party literature by stating that platformization might actually harm democratic processes through merely enhancing the power of elite groups, serving as basis to justify disinvestment in intermediary delegative bodies and organizational structures that were characteristic of mass parties and restricting the representation of minority and opposition groups. As a matter of fact, platform parties seem to mostly use digital democracy platforms for plebiscitary processes with predictable outcomes while undermining the importance of other democratic dimensions such as deliberation. Envisioning these technologies more as temporary tools rather than substantive processes tied to internal debate or formal congress approval means they can be easily dismissed without ever producing a significant change in intra-party democracy (Lupato & Meloni, 2023).

Political parties have used digital tools for various purposes: from inter-party competition activities such as campaigning, mobilization, fund-raising and recruitment of new members, to intra-democracy procedures such as selection of candidates, as collaborative tools for participation in collective internal decision-making and for the co-creation of political programmes and documents. (Fitzpatrick & Thuermer, 2023; Oross & Tap, 2023). However, most of these initiatives follow a top-down division of labour constrained by unequal power relations. The user-friendliness of digital platforms also remains an overlooked aspect.

Overall, the implementation of online participation mechanisms by political parties seems to have had a minimal impact in the improvement of intra-party democracy, since top-down practices are prevalent (Oross & Tap, 2023). Technology merely provides opportunities for further democratization, but does not guarantee it. Different conceptions of organization within the party’s leadership, such as hierarchical, stratarchical and connective, promote different implementations, which rank parties differently on the digitalization index. This level of adherence seems to also be influenced by factors such as party size, ideology and age, with younger parties usually being more adaptive.

Now that at least 92% of households in Europe have access to the internet, it is increasingly more common for European political parties and citizens to interact through online means (Fitzpatrick & Thuermer, 2023). The Covid-19 pandemic provided renewed interest in digitally mediated participation followed by increasing feelings of dissatisfaction and alienation towards traditional representative democracy, so much that parties had trouble providing adequate solutions (Fitzpatrick & Thuermer, 2023). Concerns related to data protection, security and usability are particularly relevant if more participatory processes in the future are expected to transition into the digital sphere now that more political parties are implementing intra-party

democracy platforms. To adapt to this new reality, political organizations should invest in the adequate digital resources, although this might reinforce a divide between more and less resourceful organizations.

Conclusions, limitations and further research

In this study, a systematic literature review was used to research the contributions of digital democracy platforms for political participation, their impact on democracy and the factors that enhance these platforms' successful implementation and adoption.

Digital democracy platforms have contributed to enhancing political participation by reducing the costs of participation by providing a direct communication channel for citizens to network and interact with lawmakers and political representatives without some of the challenges of analogue forms of participation (Fanta & Soběhart, 2023; Matthews, 2023), such as the spatial and temporal dimensions, which allow the escalation of participative initiatives, such as petitions, to larger numbers.

Citizens are more likely to turn to these platforms when they are dissatisfied with more traditional channels of participation (Fitzpatrick & Thuermer, 2023). This is particularly relevant considering that, under a climate of democratic backsliding, recent studies show a growing disillusionment with politics, participation and representative democracy, with disenfranchised voters often aligning with or showing tolerance for authoritarian populism after re-entering the political landscape (Svolik *et al.*, 2023). Further studies could address how exactly can these channels of participation engage the disillusioned voters as an alternative to populist politics. Barometers on participation among the youth have shown that although there is a growing and concerning trend of disengagement with traditional forms of participation, there has been an increasing interest in alternative forms of participation, with activism through digital platforms being one of them (Kitanova, 2019).

On the other hand, citizens are discouraged to use digital democracy platforms by concerns related to data privacy and legal-ethical frameworks, lower levels of trust and motivation towards political institutions, low political and digital literacy, low perceptions of the usefulness of digital democracy tools and lack of inclusive design choices (Pinto *et al.*, 2023; Calzati, 2023; Tseng, 2023).

However, although the reduction of the costs of participation appears to be a useful paradigm, overall, the contributions of digital democracy platforms and other similar participative mechanisms to enhance a scenario of participative democracy tend to be dim. For an instance, the evidence suggests that most people who make use of such platforms and extract the most value from them are the more educated urban citizens from more affluent socioeconomic backgrounds, who are less likely to be impacted by the digital divide and already possess the sociotechnical and citizenship skills required (Jiménez & Curto-Millet, 2023). People from marginalized communities usually have a negligible presence on such platforms and sociopolitical exclusion might be reproduced.

The contributions of these platforms to the democratization of democracy are also vague. The formal institutionalization of these participative mechanisms tends to lack informal institutionalization processes, such as changes in attitudes and values from the more politically powerful actors, who often hold a small regard from such initiatives and in many cases ignore their potential contributions to policy and decision-making (Randma-Liiv, 2023). In other words, political representatives, delegates and leaders often act as gatekeepers by having the final say regarding the outcome of these participatory processes and digital

democracy platforms have not provided a solution for average citizens to circumvent this centralized power dynamic. The increase of digital participation from citizens has also proven challenging for lawmakers to manage, and this contradiction might actually strengthen negative perceptions and disillusionment from citizens (Kopacheva, 2023).

Regarding the final question concerning the factors that can improve the odds of digital democracy platforms' implementation being successful, I identified 13 main topics across the papers analyzed, which I grouped in the 8 categories presented in table 2 below.

Table 2 - Factors of improvement for digital democracy platforms

Thematic category	Factors of Improvement for Digital Democracy Platforms
1. Frameworks and Governance	a) The creation of a universally agreed framework for the implementation of digital democracy platforms or projects (Borucki & Hartleb, 2023); b) the definition of clear and unambiguous goals and philosophies to guide the development and implementation of such platforms (Jiménez & Curto-Millet, 2023);
2. Inclusion and Accessibility	c) A focus on the difficulties experienced by more marginalized or vulnerable groups regarding the use of these platforms to promote their inclusion (Manazir, 2023); d) providing solutions for concerns related to security, data protection, usability, and digital literacy (Fitzpatrick & Thuermer, 2023; Pinto <i>et al.</i> , 2023; Calzati, 2023);
3. Education and Political Socialization	e) Expanding investments in opportunities for the political education and political socialization of citizens (Feng <i>et al.</i> , 2023);
4. Administrative and Structural Improvements	f) Decreasing bureaucracy among different branches of government (Feng <i>et al.</i> , 2023); g) an openness by political leaders and law-makers to support and consider the contributions citizens make across these platforms or, in other words, not just formal but also informal institutionalization of these participative mechanisms and processes (Randma-Liiv, 2023);
5. Technical and Managerial Expertise	h) Investment in qualified staff specialized to manage digital democracy initiatives and platforms (Feng <i>et al.</i> , 2023); i) the openness to use flexible and experimental approaches when managing digital democracy projects (Jiménez & Curto-Millet, 2023);
6. Technological and Regulatory	j) An awareness of how both the rules embedded in the technological design of a platform and its external regulation can either enhance or

Design	constrain democracy and participation (Deseriis, 2023);
7. Diverse Representation and Debate	k) Avoiding relying exclusively on quantitative data to translate users' opinions, in order to allow pluralistic debates beyond the limits of binary discussions (Moats & Tseng, 2023);
8. Public Engagement and Dissemination	l) Encouraging the sharing and dissemination of digital democracy initiatives in other spaces throughout the platform ecosystem (Kopacheva, 2023); m) monitoring the expectations, efforts, and motivations of citizens towards digital democracy platforms, including implementing solid user feedback mechanisms (Manazir, 2023).

This work possesses a few limitations, which provide opportunities for further research. This systematic literature review focused merely on articles published in the year 2023 on the Web of Science and Scopus databases, which has excluded relevant research published in different time frames or available elsewhere. Future research could include and compare results obtained in databases such as EBSCO Information Services and focus on a longer time frame so that more longitudinal perceptions of digital democracy's evolution can be acquired.

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