On The Duality of E-Participation – Towards a foundation for Citizen-Led Participation

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Abstract. What remains unclear after a decade of e-Participation research and practice is the extent to which the social web and informal channels have empowered citizens in government-citizen interactions where government determines what, where and how to discuss. Lately, attention has shifted to how these informal channels could be better harnessed as part of a holistic e-Participation solution. However, this implicit notion of duality of e-Participation is yet to be explored or conceptualized. This paper provides a first step towards understanding the duality of Government-led and Citizen-led e-Participation based on structuration and dynamic capabilities theories. We employ structuration theory to understand how dynamics of power between government and citizen in deciding what is important for the society and the solutions to adopt could tilt towards the side of citizens through citizen-led deliberations. Through the dynamic capabilities theory, we determine additional capabilities required by governments to meaningfully exploit and sustain citizen-led e-participation as a part or a holistic e-participation framework. We show through a case study how our resulting analytical tool could be employed in identifying salient technical, organisational and political issues in an ongoing Irish e-Participation initiative planning to adopt citizen-led deliberation.

Keywords: e-Participation, citizen-led e-Participation, e-Participation framework

1 Introduction

e-Participation involves technology-mediated interaction between citizens and the politics sphere and citizens and administration [1]. Leveraging information and telecommunication technology (ICT) in political participation enables public participation and feedback simultaneously [2], opens up a new channel for political participation while strengthening existing citizen engagement areas [3]. These well-established notions of e-Participation as a consultative, democratic process with involvement of citizens in policy making does not capture or consider communication among citizens on informal channels such as social media.

Macintosh et al. in [4] highlighted the need to design e-Participation research to consider deliberations on these increasingly important informal or so-called outsider communication channels as part of the political participation process. According to the authors, these channels present a new dimension of e-Participation, thus resulting in a form of duality of e-Participation. This dual nature of e-Participation involves on the one hand administration sponsored and driven by deliberation and on the other spontaneously conducted deliberations by citizens and special interest groups in their own way, using the many available Internet tools [4].

While some conceptualization of the duality of participation in the development context is offered in [5], studies conceptualizing e-Participation are few and those presenting (even tangentially) structuration analysis of e-Participation such as [6] are significantly fewer. Structuration analysis based on the Gidden's Structuration Theory [7] enables better understanding of how interactions among actors continuously shape, reproduce or modify institutionalized social structures. In the context of participation, it specifically enables investigating how values could be renegotiated, power re-distributed between administration and citizens [6] and what new rules are required to legitimize new forms of participation, e.g. use of new social media.

This paper provides a first step towards understanding the duality of Government-led and Citizen-led e-Participation. Our goal includes: 1) developing an analytical framework to understand the mutual reshaping of government- and citizen-led e-Participation; 2) determining necessary conditions under which the integration of citizen-led e-Participation and government-led e-Participation produces significantly improved e-Participation outcome; 3) determining the capabilities required by government and citizens to adopt citizen led participation.

To achieve these goals, we employ Structuration Theory (ST) to understand how dynamics of power between government and citizen in deciding what is important for the society and the solutions to adopt, could tilt towards the side of citizens through citizen-led deliberations. Through the Dynamic Capabilities Theory (DCT), we determine additional capabilities required by governments to meaningfully exploit and sustain citizen-led e-Participation as a part or a holistic e-Participation framework. We show through a case-study how our resulting analytical tool could be employed in identifying salient technical, organisational and political issues in an ongoing Irish e-Participation initiative planning to adopt citizen-led deliberation.

2 Theoretical Framework

This section provides theoretical foundation of work - Structuration Theory (ST) and Dynamic Capabilities Theory (DCT). We provide a general overview of the theoretical framework and highlight the complementarity of the concepts.

2.1 Structuration Theory

Structuration Theory (ST) proposed by [7] deals with the creation and reproduction of social systems. The theory is used for the analysis of the relationships between agents

and the structure. According to Giddens [7], Agency can be understood as the capability of individuals or groups to make free decisions or act, while Structure is defined as a patterned influence or limitation derived from rules and resources available to individual or group actions. In this context the theory describes the duality of structure in which structure is both a medium and an outcome of the social system reproduction process. Therefore, the rules together with resources are drawn from social actions are at the same time responsible for the social system reproduction and refinement of structures. Giddens further asserts that the constitution of agents and structures are not independent but act in synergy represented by duality. In principle the ST recognizes the knowledgeability of the agents who leverage the resources provided to change social practices imposed upon them by the structure. The knowledgeability is understood as the agents' awareness of their actions and reasons for the actions and is composed of three main so called memory traces: Domination (power) derived from authoritative resources – enable control of people and allocative resources – enable control of material objects, Signification (meaning) and Legitimation (norms) which can be referred to as the rules through which the recourses are obtained. The knowledgeability of agents is realized through reflexivity, which is described as constant monitoring of actions. The reflexive monitoring is a process dependent on factors such as time, space as well as the rationalization of the human agents.

Chitnis [5] employed ST to participatory communications to analyze the duality between agents and institutions, as well as to understand the role of power and empowerment in the social change. [5] argues that participatory communication constructs such as conscientization, empowerment and power could be framed directly with the constructs from the ST such as knowledgeable agents, dialectic of control and power and domination. According to [5] in participation, all actors gain from each other through sharing of political and economic power and subsequent structural changes leading to redistribute power.

The Structuration Theory provides a good framework for analyze the participation from the agency and structure perspective. However, the theory does not enable detailed or fine-grained analysis of the nature of capabilities requirements to support and sustain the social processes. ST also does not describe how the capabilities align to the organizational rules and routines. This gap could be addressed by employing the Dynamic Capabilities Theory [8] which enables more fine-grained analysis of capability and resources requirements for social and organizational changes.

2.2 Dynamic Capabilities Theory

The Dynamic Capabilities Theory (DCT) evolved from the Resourced Based View (RBV) [8]. The DCT extends the RBV with the acknowledgement of high dynamics of the market environments [9]. Unlike in 'static' RBV where basic capabilities allow organizations to draw from resources to produce results, the dynamic capabilities are intended to constantly integrate, re-create and reconfigure its resources as well as the basic capabilities [8]. The constant refinement enables the organization to adapt itself

to fast changing environment [10]. The DCT identifies three general types of the dynamic capabilities with regards to change of the operational routines: 1) adaptive capability – organization's ability to capitalize on emerging opportunities through aligning resources and capabilities with environmental changes, 2) absorptive capability – ability to recognize and assimilate knowledge, 3) innovative capability – ability to develop new services and markets.

Additionally, [11] defines a set of principles for dynamic capabilities under conditions of high uncertainty and high market velocity: 1) the primacy of the goal of the actions over the methodology, 2) the need for creation of situation-specific knowledge (quick experimental actions and frequent iteration), 3) parallel consideration and partial implementation of multiple options, 4) unique skill set requirement (partnership and information sharing), 5) persistence in ensuring the capabilities.

3 Approach

A major goal of this work is to combine the ST and DCT described in Section 2, harnessing the complementarity of these theories to deconstruct the duality e-Participation. In particular, the integrated use of ST and DCT will help understand how citizen-led participation can complement the current government-led approach to e-Participation and also determine what kind of capabilities will be required to achieve significantly improved e-Participation outcome both from the perspectives of citizens and government. Specific goals of this paper include:

- Develop an analytical lens based on ST and DCT for exploring the duality of e-Participation.
- Identify salient capabilities that government and citizens needs to develop in order to undertake citizen-led participation of e-Participation.
- Demonstrate the use of our analytical model by using it to analyze the need
 of an e-participation initiative by a local authority in Ireland to planning to
 undertake integrate citizen-led e-participation with the ongoing governmentled e-participation

Our analytical model was developed incrementally as follows:

- S1. ST based analysis of e-Participation we start by reviewing the structuration analysis of participation presented by Chitnis [5] to obtain core ST constructs relevant to the concept of participation. Following this, the obtained constructs were reinterpreted in the context of e-Participation. This is presented in Section 4.1.
- S2. Extending ST based analysis of e-Participation with Citizen-led participation We extend the model developed in Step 1 to include citizen-led participation. The resulting model explains the duality of e-participation; where both government- and citizen led e-Participation emerge as mutually supportive and shaping processes. This is presented Section 4.1.
- S3. Elaborating e-Participation structures and capability using DCT the final step involves the refinement of the resource and capability related constructs in the integrated model developed in step 2 with the dynamic capability theory. This enables the identification of specific types of capabilities required by

government in particular to harness the dual nature of e-participation. The DCT-based analysis is presented Section 4.2 while the integration of ST and DCT for analyzing e-participation is presented in Section 4.3

To demonstrate the use of developed model, it is employed for analyzing the requirements for implementing citizen-led e-participation in the context of an ongoing government-led e-participation initiative.

4 Structuration and Dynamic Capability Model of e-Participation

This section develops our integrated ST and DCT based analysis of e-Participation. Section 4.1 presents structuration analysis of government-led e-Participation. Section 4.2 presents DCT-based analysis of the duality of e-Participation while Section 4.3 concluded with the integrated ST and DCT based analysis of the duality of e-Participation.

4.1 Structuration Analysis of e-Participation

Government-Led Participation

The government-led participation (GleP) is a common model exploited by the contemporary e-Participation solutions and driven by three main principles: inform, consult, empower [12–14]. GleP leverages an approach where the government 'educates' and mines citizens' opinion through dedicated e-Participation platforms. Although the approach acknowledges citizens' input (whenever government seeks citizens' opinion); substantial powers remain domicile with government as it owns the process. The supremacy of government's power in this context is implied by the insufficient resources appropriated to citizens. In Figure 1 we show a general overview of the GleP. The figure presents the pool of resources and rules (i.e. the structure) that are available to the government and citizens to run and transform e-Participation.

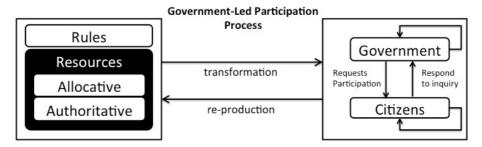


Figure 1: GleP overview

Although citizens indeed are provided with allocative resources in a form of available e-Participation tools, their capability to draw from the authoritative resources is

significantly limited. Therefore citizens are unable to implement their own ideas or resist the government's decisions. In addition, government decides what is important for policy making (signification). Furthermore, government alone shapes the system rules (full legitimation), which drive the system. Here, it is apparent, that the notion of dialectic of control is weak. A major implication of this scenario is that government may largely miss the knowledge of real needs of citizens, leading directly to the lack of engagement and ultimately lack of sustainability of e-Participation initiatives. Finally, GleP solutions designate the information and consultation as the two key, base levels for e-Participation [12]. Lastly, in the GLeP approach, there is an implicit assumption that citizens' knowledgeability is limited. Figure 1 presents a model for GLeP allowing for the reconfiguration of the power relationship between government and citizens as well as the empowerment of citizen and government agencies over time based on the interaction between government and its citizens. Next, we describe how CLeP can facilitate the re-distribution power between government and their citizenry over time.

Citizen-Led Participation

By CleP we understand a an approach where the citizens explicitly drive the eparticipation agenda under the based on that government's recognition of citizens' knowledgeability. Macintosh et al. [4] identifies the lack of the exploration of the political discussions spontaneously conducted by citizens on ubiquitous social networking sites as one of the key gaps of e-Participation. In response, a salient principle of CleP is that the government continually attempt to reach out to citizens on media of their preference, such as the less formal social networking platforms rather than on dedicated e-Participation solutions. In particular, we operationalize CleP to proceed in three main steps: listen, shape and empower. The government continuously monitors (listens) citizens' deliberation on popular 'citizen owned' social media platforms (as shown on the Figure 2) for policy suggestions, and if necessarily shapes the discussion. Here, Government acts as an expert in the domain and enriches the discussion based on the domain expertise. As a result of this process, resources distribution and system rules are continuously updated and reproduced based on the citizens' contributions. In other words, in this model, citizens can effectively exercise the agency to change the structure, thus they are empowered in the decision making process.

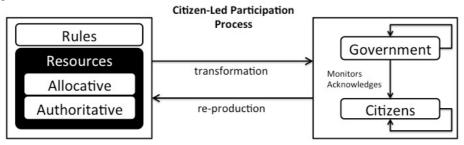


Figure 2: CleP overview

Integrating Government and Citizen-Led e-Participation

Macintosh et al. [4] describes the duality of e-Participation as the integration of the disjoint ubiquitous, spontaneous citizen-driven participation and the government-led discussions. We attempt to operationalize this notion of e-Participation duality by offering an integrated approach to e-Participation, which combines both government-led as well as a complementary citizen-led e-Participation. In the integrated model the government can continue on traditional e-Participation routine while continuously monitoring the public opinion for guidelines and feedback on the new policies. The two pillars of GleP and CleP work in a synergy addressing the duality of e-Participation (Figure 3). The salient element of the synergistic model is that the government acknowledges citizens contributions and while acting as the domain expert, shapes the discussion in order to make it more legitimate. The citizens' discussions help decision-makers to better understand the issues and focus their agenda on the most important problems.

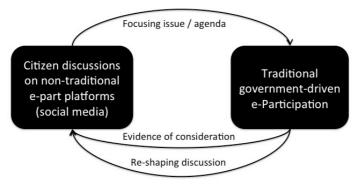


Figure 3: Integrated approach to e-Participation

As shown on the Figure 4 there are two alternative modes of e-Participation available for the citizens' input. By default, government continuously explores CleP element and in case the government does not find enough input a new dedicated, more structured discussion can be opened through the GleP element. Unlike in the traditional GleP, the integrated approach allows both relevant allocative resources as well as the authoritative resources to be assigned to citizen through the recognition of citizens' knowledgeability. This approach therefore facilitates direct citizen input to the policy making process. Since citizens are given enough authoritative resources they are empowered to exercise the agency and resist not-satisfactory decisions (i.e. resist domination by government). The integrated approach also promotes greater government transparency and ensures freedom of information along with truly guaranteed democratic rights of citizens expressed in direct policy-making influence. Our analysis of the integrated structuration model for e-participation leads to following propositions:

P1) The integration of citizen-led participation leads to better value outcomes for citizens when compared to traditional government-led participation.

- P2) Deliberation that has potential impact on government programs carried out over citizens centric media leads to better sense of empowerment by citizens.
- P3) CleP requires acquisition of special capabilities by governments.
- P4) Adoption of CleP as legitimate bases for government actions, requires the legislative and regulatory updates.

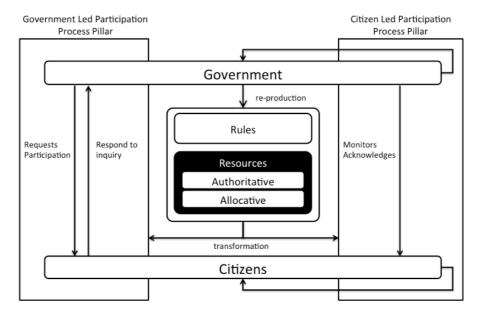


Figure 4: Dual e-Participation model

4.2 Dynamic Capabilities Model for e-Participation

According to Wang et al. [8], dynamic capabilities are intended to constantly integrate, re-create and re-configure its resources as well as the capabilities. We demonstrate a specific adoption of DCT to e-Participation by considering continuous e-Participation re-production as an integral part of the e-Participation process. In order to effectively leverage e-Participation the government needs to harness the citizens' input and transform it into policies while continuously re-constructing the e-Participation process itself to ensure relevant stakeholders empowerment. The demonstrated approach demands high adaptivity to the dynamics of the social system environment. To conceptualize e-Participation capability requirements, we frame the dynamic capabilities constructs directly with the relevant e-Participation components and processes (Figure 5). The adaptive capability (AD) can be linked to the e-Participation resources rebalance and rules updates required for sustainable eparticipation. In particular e-Participation requires AD capabilities like: dynamic resources acquisition and distribution (both allocative and authoritative resources) based on the current participation demand, e-Participation rules re-production and reformation processes based on participation process required improvements.

The absorptive capability (AC) can be seen as the knowledge exchange synergy between knowledgeable citizens and the government, learning from each other. In particular e-Participation requires AC like: continuous monitoring process intended to act as a seamless, rich source of information for the policy-makers agenda, participation shaping process necessary to ensure legitimate contributions, citizen information services guaranteeing freedom of public information and government transparency.

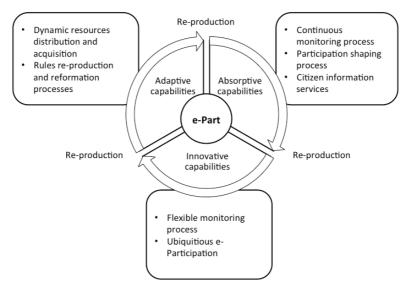


Figure 5: Dynamic Capabilities Model for e-Participation

Innovative capability (IC) can be expressed in possible expansion of e-Participation reach and constant improvement of the e-Participation process. In particular e-Participation requires IC like: *flexible monitoring process* – citizen-opinion monitoring process independent from socio-technical platform, capable of expanding to the newly created participation places, *ubiquitous e-Participation* – e-Participation available to citizens via multiple channels of their choice (variety of hardware and software platforms).

e-Participation initiatives run in an environment of high dynamics and uncertainty. Therefore the building capabilities required by e-Participation should follow the principles such as creation of situation-specific knowledge (AC) that may involve invitation of domain experts from citizens as well as parallel consideration and partial implementation (AD and IC) of suggested ideas followed by routinized citizens feedback (AC). More importantly, the clearly defined, well-announced goals and persistence of the government in constant re-production of e-Participation capabilities is required in order to ensure sustainable citizen-decision-makers cooperation.

To summarize we have identified the following dynamic capabilities: 1) adaptive capabilities including dynamic resources distribution and acquisition, rules reproduction and reformation process; 2) absorptive capabilities including continuous monitoring process, participation shaping process, citizen information services; and 3)

innovative capabilities including flexible monitoring process, ubiquitous e-Participation.

The presented dynamic capabilities model structures the way the e-Participation is reshaped in the dual process (Figure 4). Next, we present and integrated model for e-Participation and then we apply this theoretical lens, to analyze an e-Participation case study in a city in Ireland.

4.3 Integrated Model for e-Participation

We have shown how the DCT can be applied in the e-Participation context. Now we shall attempt to structure the integrated e-Participation model. As shown on the Figure 6, the integrated model has been designed to exploit the facilitative aspects of the duality of e-Participation.

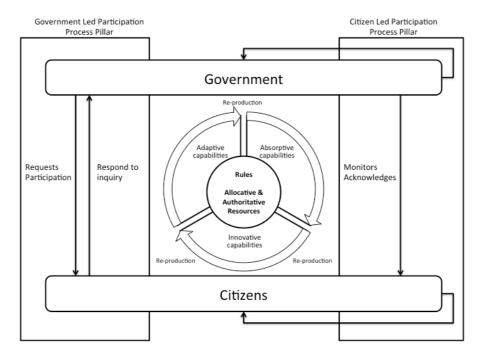


Figure 6: Integrated Model for e-Participation

The two approaches to e-Participation: GleP and CleP are explored to support the dynamic allocative and authoritative resources and enable citizens to exercise their agency to re-produce the system regardless the level of engagement and the means of e-Participation. The legitimacy of citizens' contribution to policy making is strengthened directly by government's acknowledgement and indirectly by constantly updated system rules. The significance of citizens' input is supported by specially developed by the government, dynamic capabilities. These capabilities ensure

continuous reflexive dialog and dialectic among citizens and between citizens and decision makers respectively characterizing the dual-nature e-Participation process.

This way the highly dominant role of the government is transformed into role of a facilitator, expert and executor for citizens' policy needs.

5 Case Study

We present an overview of our case study (Section 5.1), an analysis of the state of play of the initiative based on our theoretical lens (Section 5.2) and the application of the theoretical framework in determining future requirements for the e-participation initiative (Section 5.3).

5.1 Overview

The case study involves a transportation e-Participation initiative (Forum) established in 2011 as a volunteer initiative in Galway, Republic of Ireland, to identify a range of implementable, short-term traffic measures that will help alleviate some of the current city-transport difficulties. The core idea behind the solution has been to address the participation barriers, especially in context of social inclusion and impact on policy-making. The project involved most major local transportation stakeholder groups, ranging from government officials to ordinary citizens. The diverse group of stakeholders includes: the mayor, chamber of commerce, local development authorities, representatives of the enterprise sector, academia (especially civil engineering, social science and computer science), along with independent volunteers and finally the citizens.

5.2 State of play

The Forum has been considered relatively successful, although our analytical lens points out a number of issues that may pose a serious threat to the sustainability of the e-Participation solution. The Forum, as indicated, has been initiated and managed by the mayor of the city; thus considered a GleP platform. The role of the e-Participation solution has been to increase local government awareness of the citizens needs regarding the transportation in the city as well as to ensure greater ownership of the key transportation decisions by citizens. Thus, based on GleP approach, the basic assumption of the project is to bring citizens over from many distributed spontaneous discussion places, and gather them on one platform to deliberate on the issues in a structured way. The solution offers multiple communication channels such as e-mail, digital forum, social media extensions (rich allocative resources), nevertheless the digital and paper surveys have been designated and recommended as the main contribution channel for citizens (what has been expressed in dissemination materials and reflected by the Forum design). The surveys have been designed with no input from citizens and have been shaped to answer very particular questions on

transportation in the city. These facts imply that the citizens' contributions are very limited and actually 'censored' through narrow structure of contribution [15] with low level of significance assigned to citizens suggestions. Moreover one-way communication through mainstream media has been favored by the government, strengthening the image of the government's ownership of the initiative. What has been indicated on the platform, one of the key goals of the initiative has been to deliver a combined report, gathering together citizens' contributions that are handed over to the local transportation authority (LTA). Nevertheless, in the absence of any assurance that the ideas and solutions suggested would be implemented, citizens using the Forum are given very little authoritative resources, demonstrating the dominant position of the government. Moreover, LTA has been active on the Forum platform only on volunteer bases without taking full ownership of the solution which implies a lack of legitimacy assigned to citizen's contributions. Although citizens' contributions are very constraint due to fixed topics and questions, as the experience of this study shows, decision makers are surprised by many ideas proposed in the report. This supports the hypothesis that the government is not fully aware of the real needs of citizens. The experience showed also that the LTA finally did not acknowledge the suggestions presented in the report and followed their own agenda regarding the changes in the city (no signification power assigned to citizens' contributions). Without feedback from government to citizens on the extent of adoption of their contributions, citizen engagement on the platform systematically dropped. The LTA's inadvertent weak recognition of citizens' knowledgeability; its reliance only on their internal expertise, supports the observation of the existing gap between citizens' ideas and proposed improvements in the city. This has continued to cause growing public disappointment. Nevertheless, lack of significant authoritative resources or supporting system rules on citizen's side indicates that the citizen are not sufficiently empowered (i.e. no legitimation power). To conclude from the dynamic capabilities perspective the initiative misses absorptive capabilities by not taking into consideration the knowledgeability of citizens. The innovative capabilities have been rather missing apart from the multichannel communication, failing to provide citizens with seamless, ubiquitous e-Participation. The adaptive capabilities are not really present in the initiative as the initiative operators limited their actions only to minor fixes and improvements to the technological platform without any e-Participation re-production process in place.

5.3 Integrating CleP

The Forum initiative has been intended to address the common e-Participation issues. Nevertheless, with the consideration of the duality of e-Participation, the solution has been missing clear guidelines on structure of the process.

Therefore we would like to discuss the propositions regarding CleP integration posed in the section 4.1 that could help to alleviate the current issues of the e-Participation solution. Considering the proposition that CleP leads to better value outcomes than GleP alone (P1), we believe that CleP, promoting the open-structure of contributions, could help to avoid the mentioned aspects of 'censorship' that are present on the current platform, hence ensuring greater and richer source for

deliberation. Moreover, citizens enabled to participate from their own social spaces would be given a better sense of empowerment. Therefore CleP would certainly help the Forum to bring more ownership of the e-Participation process to citizens and that should have direct implication in greater citizen engagement (P2). To ensure quality contributions in CleP the government is an active deliberation participant and shapes the discussion as a domain expert, thus again, regarding the better value outcome, the ideas and suggestions generated by CleP would have more legitimacy and better quality than in the current solution (P1). Nevertheless, as pointed out in the propositions before, these changes would require the government to generate new capabilities, especially the absorptive capabilities such as continuous monitoring and discussion shaping as well as innovative capabilities in a form of ubiquitous e-Participation and flexible input capability which are all rather very limited or nonexistent in the current solution (P3). As the experience of the Forum shows, the weak legitimacy of the contributions in absence of authoritative resources has been the key obstacle for the initiative to fully succeed. This situation demands new rules and regulations to be set up, re-produced and routinized by the local government in order to provide enough legitimacy to citizen contributions, hence supporting the sense of empowerment of citizens (P4 and P2).

The future work will seek to confirm that the proposed CleP integration brings the expected benefits.

6 Discussion

Results from our theoretical work provide good evidence to support the claim of poor structuration of popular (GleP) e-Participation initiatives [13] leading these initiatives to ultimately fail. The application of the combined ST and DCT-based, theoretical framework exposes important e-Participation issues related to missing recognition of citizens' knowledgeability and imbalance of resources, while providing guidelines for future research in the field. It is apparent from this work that the common understanding of citizen-empowerment [15][16][17] is incomplete. In particular our findings expose the fact that e-Participation approach where citizens are given only limited, allocative resources in absence of signification and legitimation power is not sufficient and demands deep refinement. One could argue that given the less than a decade history of e-Participation research and practice, such level of development of the e-Participation domain is expected. Nevertheless in our opinion, developing a framework such as the integrated e-Participation model presented in this work and providing a robust conceptualization of the e-Participation process is a necessary condition for the sustainability of e-Participation initiatives.

The case study analysis presented in this paper confirms our previous observations. The framework proposed captures the key dimensions of participation, answering the question why the initiative seem to loose the citizen engagement although many 'traditional efforts' have been made (such us extensive media campaigns). The framework highlights the key improvements required and provides guidelines for the initiative designers that could help to ensure the e-Participation sustainability. One of the key improvements is to extend the existing GleP approach

with the CleP and introduce the integrated e-Participation model presented. We believe that CleP is a visible option for the local government although due to limited resources on processing citizens' opinions the monitoring would have to be supported by relevant technologies.

Well-established social networking platforms are ubiquitous and witness far more engagement than any e-Participation solution. Moreover many people incorporated them into everyday activities as they are very easy to use [18] and indeed they became a spontaneous place for many political discussions. Therefore we believe the duality of e-Participation is a fact and there is a great challenge as well as an opportunity to leverage the potential of social media for participation purposes.

Apart from [5], we are not aware of any other significant attempts at applying Structuration Theory to social participation domain. Moreover we have not found any approach that would try to combine and apply in particular both ST and DCT to e-Participation. While there have been past efforts, aimed to scope e-Participation [16] and elicit its core dimensions [13], these studies present a very general view on e-Participation with lack of information on the theoretical basis for these work and providing low granularity level in regard to structuration of the participatory communication (or focus on technology), make them difficult to evaluate in terms of coverage and relevance.

Despite claims by [7][5][8] and the wide application of the ST and DCT in different social system related domains, we cannot claim "absolute completeness" of the presented approach with respect to e-Participation.

7 Conclusion

Motivated by the need to provide the necessary step towards structuration of e-Participation, we have presented an integrative theoretical lens for analyzing and improving existing e-Participation methodologies. Results from our work show immediate opportunities for consolidating the social-systems' related theories and the application to the democratic context for e-Participation. While we have demonstrated the usefulness of the analytical lens, more detailed and formal models are yet to be developed. Next steps for the research include the implementation of CleP solution for the Forum e-Participation system and introduction of the integrated e-Participation approach followed by a detailed system analysis. Future steps should also bring series of applications of the theoretical lens as an analytical framework for analyzing and suggesting improvements for selected e-Participation initiatives.

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