



Reframing E-participation for Sustainable Development

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ABSTRACT

The role of digital technologies in the public administration has grown significantly in the last five decades, with over 80% of United Nations Member States currently using technologies for public governance processes. This trend has contributed to the evolution of e-governance practices. E-participation in particular, has become a norm in policy and decision-making in a growing number of countries and a key enabler for achieving the United Nations' 2030 Agenda for Sustainable Development, with governments and people developing crucial abilities to create, use and share digital resources that allow them to interact with one another in multiple ways. These practices are pervasive and evolve rapidly, especially in emergency situations such as the COVID-19 pandemic. This article introduces six sub-dimensions of e-participation, within the existing United Nations E-participation Index framework, that seek to capture the different levels of digital interactions between people and e-governments against the backdrop of the 2030 Agenda for sustainable development. These sub-dimensions are based upon an array of sources, including academic literature, expert group meetings held by UN Department of Economic and Social Affairs and cases reported by countries in the UN E-Government Surveys. This approach aims to deepen the understanding of how governments adapt to enhance people's ability and capacity to participate in digital governance, which is after all a fundamental aspect to building better, more effective and accountable institutions and constructing sustainable and inclusive societies – leaving no one behind.

CCS CONCEPTS

• **Social and professional topics** → **Government technology policy**; • **Applied computing** → **E-government**; • **Human-centered computing** → **Collaborative and social computing theory, concepts and paradigms**.

KEYWORDS

e-participation, e-government, sustainable development, sub-dimensions, e-information, e-consultation, e-decision making

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1 INTRODUCTION

“The scope of e-government has broadened beyond the delivery of public services; this is reflected in the semantic shift from e-government to digital government and digital governance and the growing emphasis on the role ICT plays in public administration”

UN E-Government Survey 2020 [49, p.115]

Digital technologies have paved their way into society with over 80% of countries (162 United Nations Member States) having leveraged these technologies into public governance [49]. In the context of the 2030 Agenda for Sustainable Development, e-participation is increasingly being recognized as a key enabler of sustainable development and the overall goal that no one will be left behind. Further, the challenges brought up by the COVID-19 pandemic, have consolidated e-participation's instrumental and intrinsic value for public administrations in the effective delivery of public services and the co-construction of approaches to address issues of common interest.

Since 2003, the UN E-government Survey, through the process of the E-Government Development Index, has been measuring electronic government development across countries and continuously tries to seize all recognized facets of digital governance, spanning from global, regional and local trends in e-government to measuring countries' e-participation approaches. In the span of two decades, the Survey's methodology and its main constituents have evolved while keeping the evaluation of governments' digital development at the centre of its assessment. Amongst the major benchmarks presented in the Survey lies the United Nations E-participation Index or EPI, which seeks to measure all 193 UN Member States' governments' approach in developing their strategy for supporting online participation of people, thus covering a large spectrum of activities and measures in e-participation.

This paper proposes a reframing to the United Nations E-participation framework by introducing six sub-dimensions of e-participation (e-notification, e-enabling, e-discourse, e-dialogue, e-collaboration and, e-empowerment). This reframing was built by analyzing various references including academia, the Expert Group Meetings held by UN DESA, the UN E-Government Surveys (2003-2020), and recent case studies and reports by countries. These dimensions seek to reflect the current role of e-participation

in governance and society, guided by the different levels of interaction between people and e-governments in a context where e-participation can significantly help the achievement of the 2030 Agenda for Sustainable Development.

This work's originality finds itself through its complementarity to previous reports and discussions on the topic of e-participation [10, 46, 47, 49] and, primarily on its attempt to examine the complexity of interactivity in e-participation public services within the framework of Sustainable Development. This article provides a reframed form of the e-participation index and the components related to its application in order to encourage governments to implement versions of these approaches to enable the delivery of sustainable, inclusive and equitable services to everyone, everywhere – leaving no one behind.

2 BACKGROUND ON E-PARTICIPATION

In this section, we present a synopsis of the term of e-participation including an overview over its history, its links with the framework of the 2030 Agenda for Sustainable Development and, outline both UN and non UN based instruments and methods currently used to measure e-participation.

2.1 A Brief History of E-Participation

“E-participation is the process of engaging citizens through Information and Communication Technologies (ICTs) in policy, decision-making, and service design and delivery so as to make it participatory, inclusive and deliberative”

UN E-Government Survey 2014 [10]

E-participation has evolved significantly, along with the relationship between governments and people in the past 50 years – from the notable ladder of participation that conceptualized the different roles of people in a society [2] and teleinformation visions to enable public debates [3, 11] in the 70s, the incorporation of information flow perspectives in the 80s [3, 9], the recognition of local knowledge and electronic rights in the 90s [8, 20], the normalization of electronic governance in the 2000s [6, 13, 23, 30, 47, 53], and the popularization of digital social platforms (also known as the web 2.0) in the 2010s [12, 29, 54], to the growth in co-produced and co-created initiatives and personalized digital governance in the 2020s [17, 19, 49]. Though the most recent interpretations of e-participation markedly put people and their initiatives at its center, the application of e-participation in a government led approach has prevailed for the majority of time [24, 36].

2.2 E-Participation for Sustainable Development

“Leaving no one behind”

Principle of the 2030 Agenda for Sustainable Development [48]

Participation is recognized as a key pillar for sustainable development [4, 50, 51] as it has proven to improve and enhance the quality, acceptance, and durability of decisions in local, national and international settings [19]. This is especially demonstrated with

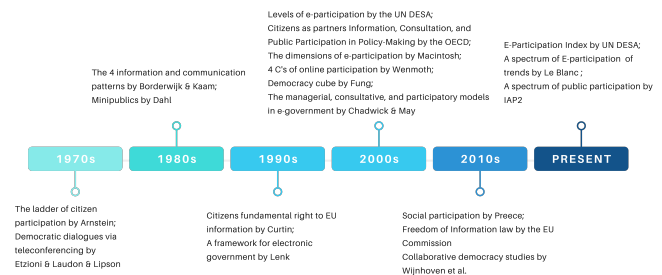


Figure 1: Evolution of E-Participation in the 1970s [2, 11], 1980s [3, 9], 1990s [8, 20], 2000s [6, 13, 23, 30, 47, 53], 2010s [12, 29, 54], and the 2020s [17, 19, 49] (adapted from [28])

the sustainable development goal 16 target 7 calling to “ensure responsive, inclusive, participatory and representative decision-making at all levels” [48].

Likewise, the ubiquity of technology in society and its recognized importance for achieving the 2030 Agenda for Sustainable Development inherently place e-participation as a crucial component to take into consideration for sustainable development. Moreover, e-participation as such, is a necessary subset of participation and e-governance, both for intrinsic and instrumental reasons [19, 39]. Intrinsic in the sense that e-participation is a desirable element when building inclusive, participatory and trust-based societies – which are key principles for sustainable societies. Instrumental in the sense that e-participation increases government’s accountability, improves public services delivery, enhances the legitimacy of governance processes and improves the quality and success of policies [19, 39, 45].

Further, visions of e-participation have evolved in parallel to sustainable development in the last five decades (see Fig. 1). At the same time that “Our Common Future” report [4] – which provided the first definition of what sustainable development entails – was being developed, scholars were forecasting the possibility of holding democratic dialogues via teleconferencing [11], and proposing classifications for tele-information services to mediate inter-human communication in societies [3, 9]). E-participation has now become a norm in policy and decision-making in a growing number of countries and a key enabler for achieving the 2030 sustainable development agenda. The situation that ensued from the COVID-19 pandemic only reinforced the necessity and value of e-participation for public administrations in enabling the co-creation and delivery of effective public services. However, there is a growing phenomenon of pseudo-participatory digital tools¹ that infuse pre-set agendas into features that resemble non-participatory degrees of participation such as manipulation, and placation [2, 35]. Likewise, the COVID-19 pandemic has highlighted cases of governments implementing digital tools in order to fill potential voids planted by the pandemic while disregarding civil rights. For instance, the incorporation of contact tracing applications in some countries was carried out without the concern of involving individuals in the

¹Digital pseudo-participation definition: “The configuration of digital artifacts and/or processes that can provide an illusion of participation but lacks supportive processes and affordances to allow meaningful participation to happen” [26]

process or even paying sufficient attention to the privacy aspect [32].

In response to the latter issue of privacy and as in any public policy, measuring and evaluation throughout the process is critical. It is important to monitor if e-participation programmes consistently adhere to agreed development objectives and governance frameworks. Very often, however, only a small amount of public funds is spent on evaluation as compared to the amount of public funds on programmes. One reason for this imbalance is that the desired outcomes and impacts of e-participation activities make it hard or costly, or both, for one to examine and evaluate them [19]. Measuring and evaluation is however an important step to institutionalizing e-participation programs and would provide a concrete and valuable solution to these inconsistencies identified above.

Indeed, these gaps threaten the capacity for e-participation to enable inclusive and equitable services to everyone, everywhere – leaving no one behind. The e-participation framework seeks to address these issues by providing a comprehensive framework that envisions e-participation as a dynamic and inclusive process – that entails developing digital literacy, technological infrastructures, and digital rights—a critical set of characteristics in the context of the 2030 Agenda, as opposed to an end in itself – constructed upon technology alone.

2.3 The UN E-Participation Framework and Other Related Measures

The United Nations E-participation Index or EPI, is a multifaceted framework, composed of three core components, i.e. e-information, e-consultation and e-decision-making.

Understanding e-participation starts with the process it upholds. Following the UN E-participation Index structure, e-participation counts multiple forms, it begins, as a *sine qua non* with the informative level, during which the government provides its citizens with basic information leading to the second, a two-way form, where citizens are invited to give their inputs to governments and finally, 'the partnership option' during which citizens become the protagonist by leading the policy-making process [30]. The latter framework closely relates to the type of three tiered structure within the UN E-participation framework, that was first utilized in the 2003 edition of the Survey.

In addition to the UN's EPI as a global measure in e-participation, there exists other types of e-participation measurement initiatives. For example, the Waseda-IAC International e-Government Rankings (2019/2020) survey [16] also assesses e-participation as part of its evaluation of e-government development of 65 countries. Among its ten indicators used, it includes the E-Participation or Digital Inclusion (EPAR), which consists of three components that are similar to the UN's EPI, namely (i) E-Information Mechanisms; (ii) Consultation; and (iii) Decision-Making. The World Bank's World-wide Governance Indicators (WGI) project [43] reports aggregate and individual governance indicators for over 200 countries and territories over the period 1996–2019, through over 30 individual data sources produced by a variety of actors. It includes "Voice and Accountability" as one of its six dimensions of governance and defines the dimension as "capturing perceptions of the extent

to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media" [43].

Other global measures utilize the UN's EPI as one of its indicators instead of deriving its own indicators. Examples are the World Economic Forum's Global Competitiveness Report, in its analysis of "Public Sector Performance (e-participation)" [38]; and the IMD (International Institute for Management Development)'s World Digital Competitiveness Rankings 2020 [15]. There are, however, limitations in above-mentioned e-participation measures. For instance, the UN EPI focuses on the "supply" rather than the "demand" side of e-participation. In addition, on the one hand, such extrinsic measures are subject to the reality of governments paying lip service or "window dressing" to engage people but not in delivering the expected outcome or development impact. On the other hand, the accelerated development of new communication technologies may mask both the potential and risk of artificial intelligence (AI) and other automation tools driven by big data and sentimental analytics, for instance, in providing anticipatory or more responsive e-participation mechanisms.

Notwithstanding the usefulness and limitations of above measures, e-participation is highly contextual – measuring e-participation does not need to be static and based on established terms as e-participation is not a "once and done" project or process – it will evolve over time in tandem with people's needs and emerging policies and technologies. For instance a country's e-participation approach can also be assessed through other means such as through self-assessments and perception surveys of target recipients. As mentioned previously, measuring and evaluation is essential to keep track of the aims and goals of e-participation, especially in supporting sustainable development. Governments should take an adaptive approach, learning from existing measures and frameworks that have proven effective in different contexts or purposes, and in tandem with the increasing availability, prevalence and ubiquity of digital technologies. Identifying governance goals and gaps through measures in e-participation processes is essential.

Past research and studies in the field of public participation and later e-participation have made significant contributions to the understanding of the multidimensional aspect of public and online participation and thus allowed for governments, and society as a whole to better appreciate its benefits and advantages in adopting and implementing. That being said, as demonstrated in sections above, these studies seem to have arrived at a standstill. They have displayed, by their similarities and constancy within their theories and frameworks, somewhat monotonous invariability, which inevitably comes at the cost of capturing a dynamic, forward-looking approach. Indeed, many of these studies either repeat the UN's E-Participation Index framework in supporting their research or present a slightly altered version of the UN's EPI, neglecting the compelling need to extend its form to reflect current and new modes of interactions in e-participation between the government and its people and by this, reframing E-Participation for Sustainable Development, which is what this paper seeks to carry out.

3 REFRAMING E-PARTICIPATION FOR SUSTAINABLE DEVELOPMENT

“Participation in contemporary governance is complex”

Archon Fung [13]

As of 2020, a total of 162 countries (83% of UN Member States) offered at least one online transactional digital service to their people [49]. Although evidence shows that the introduction of an online platform for participation will encourage people to participate [39], technology alone cannot determine the outcome of participation [27]. E-participation — alike participation itself [2, 13] — is a continuum that stretches from low-level information-gathering towards multidirectional participatory interactions between people and their governments. This, in compass with a number of enablers and barriers such as policies, organizational support, culture and technical configurations [45]. In light of this continuum, scholars and, international organizations (see Fig 1) have used either a three or a five-point scale to document and, measure specific levels of e-participation (i.e. inform, consult or empower).

The UN E-government Survey has used the three-level point scale (e-information, e-consultation and, e-decision making) since its inception in 2003 [46, 47]. Despite the widespread acceptance and use of these dimensions, scholars have come to recognize its limitations to measure emerging forms of digital interactions between people and their governments [17–19, 24, 25, 28, 31, 45, 54]. For instance, accessing public information — a citizen’s right in many countries, varies depending on the technology means made available to the public, reading policy decisions from a pdf document is less enabling for people than reading it on an interactive website that allows commenting. Further, the configuration of participation through digital platforms is a growing phenomenon in the design of digital public services [26]. E-participation indeed can vary widely depending on who, how, and to what extent one can engage through a platform [13, 19].

The field of e-participation keeps on evolving as digitalization and societies progress. Especially in relationship to new services being created by governments and the global pursuits directed at achieving the Sustainable Development Goals. In this section, we contribute to advance the three-level scale by introducing six sub-dimensions of e-participation, in a context where e-participation has become fundamental to the 2030 Agenda. Though an important aspect, this paper will not delve into the particular Sustainable Development Goals enacted as part of the 2030 Agenda, except for SDG 16.7 cited above, as this research aims rather to extend the UN EPI framework and support this expansion with the critical role e-participation plays for the 2030 Agenda for Sustainable Development.

3.1 Approach

The main goal of this study is to explore the complexity of interactions that can take place through e-participation services. We opted to take an exploratory study approach [40], where case studies, literature and qualitative insights were analyzed to outline and develop the concept of the six sub-dimensions of e-participation.

3.1.1 Literature Review. a review of a corpus of 80 academic articles related to e-participation was carried out by the authors. The articles were selected based on their relevance to e-participation from venues such as conferences and journals related to the fields of e-governance, e-democracy, public governance, computational social sciences, and human-computer interaction.

3.1.2 Case Studies. A total of 41 cases from the UN E-Government Survey 2020 [49], 13 member state questionnaire (MSQ) responses from 2019, further classified into the proposed sub-dimensions based on each country’s e-participation implementation [52], and pilot assessments from 10 cities and 6 different countries were analyzed throughout the development of this framework. These cases as well as multiple discussions and deliberations carried in a group of five interns of UN DESA, were used to develop the framework’s first iteration, which was later complemented by the qualitative insights of an UN expert group meeting.

3.1.3 Qualitative Insights from an Expert Group Meeting. A semi-structured workshop focused on e-participation was held in March 2021, with the participation of experts from industry and governance². The event was organized so that the experts would listen to an introduction of the e-participation six sub-dimensions framework and, discuss it for 45 minutes. These discussions were synthesized by two interns and, its insights were incorporated into the framework.

3.1.4 Limitations. This research has sought to reframe e-participation for Sustainable Development by expanding the current UN EPI framework with sub-dimensions for each principal dimension, in an attempt to better reflect the current dynamics at play between governments and people. Despite being supported by an array of different sources, it remains a relatively new and upcoming theme in the research and government policy field, limiting the amount of supporting evidence and examples for these sub-dimensions. Moreover, e-participation, as demonstrated through government case studies and the standard multidimensional framework for e-participation, carries a broad and contextual style for every government and country setting, thus requiring it to be adaptive and nonspecific by nature.

3.2 The Six Sub-Dimensions of E-Participation

The six sub-dimensions of participation presented in Table 1 (e-notification, e-enabling, e-discourse, e-dialogue, e-collaboration and e-empowerment) seek to reflect this complexity along with the different types of interactions that can take place in e-participation services. These sub-dimensions distinguish different modes of interaction between people and their governments through technology and are guided by the United Nations E-Participation Index (EPI) dimensions of: e-information, e-consultation, and e-decision making. The following illustration classifies the proposed sub-dimensions according to: *the flow of information* between people and government institutions in the digital arena, mainly the course of the process involved and the synergy of roles, *the purpose* intended for

²Expert Group Meeting in Preparation for the UN E-Government Survey 2022. Organized by the UN Division for Public Institutions and Digital Government on 29–31 March 2021: <https://publicadministration.un.org/en/news-and-events/calendar/ModuleID/1146/ItemID/3078/mctl/EventDetails>

each sub-dimension from the government’s perspective as the main service provider to the people, and finally, in conjunction with the latter, examples of *technologies* currently used for implementation.

3.2.1 E-Information. Aims to respond to the people’s needs by providing information that may enable participation in a fast and efficient manner. Whereby the government provides information to people that is considered enabling to participation. Two sub-dimensions form part of this dimension: e-notification and e-enabling. **E-notification** refers to the government’s provision of information and/or data through digital portals that serve a notification purpose for the people (see Table 2 for links with related theories). For example, in Sri Lanka, the people can access Government information through a call center (www.gic.gov.lk), operated by a private party (MSQ 2020 response). Whereas through **E-enabling interactions** we come across government provision of information and communication tools in government portals that enable people’s agency to mobilize their opinions and needs. Whereby the tools principally affect participants’ sense of civic fulfillment rather than the decision-making process itself. For example, in Uganda: the Government has established a Government Citizens interaction center enabling citizens to interact with the government, through emails, SMS messages, phone calls, social media and a case ticketing tool.

3.2.2 E-Consultation. Seeks to respond to people’s concerns by improving the policy provision to the people through digital services. Whereby the government consults individuals on policy or on service delivery at different stages of the process and possibly provides feedback to them. Two sub-dimensions form part of this dimension: e-discourse and e-dialogue (see Table 2 for links with related theories). **E-discourse interactions** happen through government provided services and or processes, aimed to gather people’s opinions and needs for online service delivery enhancement. For example: the Government of Singapore carries out an annual e-Government Perception Survey to determine the level of receptivity, adoption and satisfaction that citizens and businesses have with e-Government services. The results are published online and the findings are also shared with public institutions (MSQ 2020 response [52]). Through **E-dialogue interactions**, the government consults people on policy or service delivery matters through digital spaces that may support online debates. For example: in Brazil, by Decree 8,243, of 23 of May, 2014, the National Participation Policy and the National Social Participation System were established and the portal www.participa.br allows for a virtual environment of social participation and promotes a dialogue between the federal public administration and civil society (MSQ 2020 response). E-information and e-consultation both stress vertical forms in the flows of information from the government to the people [31].

3.2.3 E-Decision Making. Aims to create horizontal and multi pattern flows of information, where the people play an active role co-creating the process of governance itself mediated by digital tools. Whereby the government involves or supports people in decision-making; through e-collaboration and empowerment which form part of this dimension (see Table 2 for links with related theories). **E-collaboration interactions** are aimed at enhancing policymaking and governance, they happen through the co-design, co-creation,

and co-production of services, and information between government and the people in digital spaces. For example: in Australia, the Strategy and the Digital Service Standard, encourages the government’s digital engagement through services that are designed around peoples’ needs, with a strong emphasis on approaches that involve citizens in the design and delivery of government policies, programs and services (MSQ 2020 response). **E-empowerment interactions** are aimed at supporting people’s initiatives and participation in people-driven agendas. Where civic initiatives are integrated through the means of digital tools and platforms into the enhancement of the administration and policy. For example: in Uganda, the National E-government Masterplan includes, as one of their main pillars, a Digital Inclusion and Empowerment plan, which seeks to identify and develop digital solutions that are inclusive for people with low skills and low literacy, helping them to participate in the knowledge society in innovative ways (MSQ 2020 response).

3.2.4 Interactivity and Complexity of the Six Sub-dimensions of E-Participation. These six sub-dimensions of e-participation seek to reflect the current role of e-participation in governance and society, guided by the different levels of interaction between people and e-governments in a context where e-participation can help achieve the 2030 Agenda for Sustainable Development.

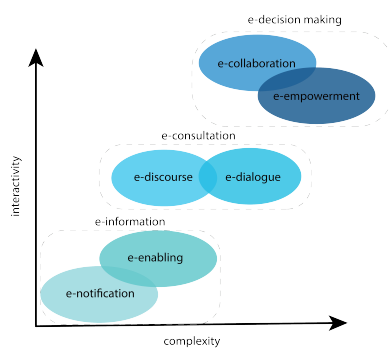
Figure 2 depicts the position of these six dimensions along with their levels of complexity and interactivity. We can thus observe that, despite two sub-dimensions belonging to the same dimension (i.e. e-information, e-consultation or e-decision-making), their level of complexity and interactivity can differ among themselves. For instance, e-enabling, which applies to e-information type of participation, is understood as a more complex and interactive mode of e-information for it requires the government to expand its role to people, as an enabler of action through information. More over, as the figure illustrates, there is not a direct positive correlation between levels of complexity and interactivity for the position of each sub-dimension. Indeed, e-empowerment is considered a more complex form of e-decision making than e-collaboration, yet demands for less interactivity as it places the people as the protagonist of the decision-making process. This figure helps support the argument for the need to reframe the current three tiered system of e-participation measurement as it displays all the possible distinctions deriving from the field of e-participation and how the risk of overlooking these fundamental aspects of e-participation can result in governments discounting the importance of these dimensions in advancing the 2030 Agenda. supplements/

4 DISCUSSION

Public participation has proven to be beneficial for all sides of society, especially when people’s inputs are placed at the core of its process. Harvorsen et al. [14] stresses that public participation contributes to the overall improvement of people’s perception of governments responsiveness towards their needs. Enabling participation for people online introduces numerous opportunities to engage with governments and allows for a more efficient and inclusive society [34, p.401]. In addition, digital tools help to lower coordination costs, in turn allowing for smoother collaborations [5, 7, 44]. That being said, as long as the appropriate policies and

Table 1: Dimensions and sub-dimensions of e-participation (adapted from [6, 31])

	E-information		E-consultation		E-decision-making	
	E-notification	E-enabling	E-discourse	E-dialogue	E-collaboration	E-empowerment
Definition	Governments provision of information and/or data through digital portals that serve a notification purpose for the people.	Government provision of information and communication tools in government portals that enable people's agency to mobilize their opinions and needs. Whereby the tools principally affect participants' sense of civic fulfillment rather than the decision-making process itself.	Government provided services and or processes, aimed to gather people's opinions and needs for online service delivery enhancement.	The government consults people on policy or service delivery matters through digital spaces that may support online debates.	Aimed at enhancing policy making and governance, happens through the co-design, co-creation, and co-production of services, and information between the government and the people in digital spaces.	Aimed at supporting people's initiatives and participation in people-driven agendas. Where civic initiatives are integrated through the means of digital tools and platforms into the enhancement of the administration and policy.
Flow of information	One-way	One-way	Two-directional	Two-directional	Two-directional, multipattern	Multipattern
Purpose	Deliver information	Enable people's agency	Enhance service delivery	Improve policy	Collaborate on administration related goals	Acknowledge people's role in governance
Technologies used	data privacy notice, data policy notice, city goals statements, web portal, RSS, SMS alerts	social media posts, open data licenses, open data portal, real-time data visualizations, web blogs, video blogs	e-participation catalogue, automatic response chatbots, web calendar, e-polling, feedback forms, contact us	satisfaction surveys, usability surveys, online reporting of discrimination	hackathons, electronic town hall meetings, GIS tools, crowdsourcing tools, crowd-law tools, participatory budgeting	e-petitioning, list of community partners, civic tech partnerships

**Figure 2: Six Sub-dimensions of E-Participation**

regulatory frameworks do not align with technological progress and the implementation of e-participation processes by governments and other stakeholders, the associated risks and challenges could continue to prevail and even multiply.

When developing processes and technologies for e-participation, depending on the entity behind its design, there can be associated risks for its target beneficiaries. An important issue that arises in the development phase is the ability to satisfy, on one hand, aspects of quality and security along with the enhancement of design features and on the other hand, to ensure inclusivity of users as the latter somewhat disagrees with *"high levels of complexity and expertise requirements"* [1, p.128]. Likewise, matters of language barriers and technical skills can lead to segregation and discrimination. In fact, studies show an overall bias in favor of individuals with a higher socio-economic status and education levels; skewing the participation numbers in their favor [33]. These risks and challenges all relate to the globally admitted problem arising from the advent of digital tools, the lack of proper policy and regulatory frameworks, and the lack of adequate digital literacy, that is, the digital divide. Oftentimes, e-participation, though lauded for its good intention, shows little support in being a strong policy instrument. In fact, even though participants to e-participatory projects attribute it for added personal value for themselves and their community, they showed limited belief in its ability to make an impact on politics [18]. This can be partially attributed to the disparate ways on how

e-participation is measured and evaluated by government, which is beyond the scope of this research paper.

5 CONCLUSION

This paper has illustrated, how e-participation could be better interpreted and reframed through the introduction of six new sub-dimensions to the three dimensional UN's EPI framework. These dimensions and sub-dimensions are e-information (e-notification and e-enabling); e-consultation (e-discourse and e-dialogue) and e-decision making (e-collaboration and e-empowerment). We believe that this reframing exercise will serve to better support the understanding of people's engagement in the Decade of Action in delivering the 2030 Agenda for Sustainable Development, as well as in improving the relevance of the UN E-Government Survey. However, as in any scope related to civic digital technologies, the fast evolving landscape brings uncertainty in future trends and development in e-participation.

Clearly, digital technology is shaping the way we live and work and the societies of the future. But there is also an increasing deficit of trust in technologies, associated with a broader notion of distrust in digital government. Today's experts and practitioners in e-participation are confronted with a full spectrum of questions. How will e-participation be affected by trust and distrust of technologies or digital government? Will future e-participation be led by new communication technologies such as AI, robotics, etc., or vice-versa? How will e-participation change with increasing public scrutiny of governance of social media platforms? In another aspect, how will the narrative for e-participation policies and mechanisms change with the systemic shift from citizen-centric to people-centric –to include non-citizens such as migrants, refugees, etc., in meeting the objective of leaving no one behind? It is noteworthy that further research and studies of cases in countries are needed to further understand the practical implementations of the proposed six sub-dimensions and reframe e-participation as a development continuum, especially in addressing post-COVID-19 sustainable development challenges and solutions. We suggest future works in the field to take into consideration both sides of the equation of e-participation, meaning both the government's perspective as well as the people's. As, this would allow for better and widely used e-participation services in societies.

Table 2: Mapping of frameworks and theories in relationship to the six sub-dimensions of E-participation

Author	E-information		E-consultation		E-decision-making	
	E-notification	E-enabling	E-discourse	E-dialogue	E-collaboration	E-empowerment
[11]				deliberation conference calls	deliberation conference calls	
[3]	allocation		consultation	conversation	registration	
[9]			minipopulus	minipopulus	minipopulus	
[20]	addressees perspective		The co-operation perspective		The knowledge perspective	
[8]	access to EU information					
[30]	information provision	consultation	consultation	active		
[6]	managerial model	consultative	consultative	e-engaging	participatory	participatory
[23]		e-enabling	e-engaging	e-engaging	e-empowering	
[47]	e-information	e-information	e-consultation	e-consultation	e-decision-making	
[13]	listen as a spectator	express preferences	develop preferences	aggregate and bargain	deliberate and negotiate	
[53]	consumer	commentor	commentor	commentator	contributor	
[29]	reader	contributor	contributor	collaborator	collaborator	leader
[12]	freedom of information law	freedom of information law				
[54]		constituency support	collaborative democracy	collaborative democracy	citizen sourcing, ideation & innovation	
[17]	inform	consult	involve	collaborate	collaborate, empower	
[19]	provision of information	provision of information	consultation	collaboration	collaboration	
[27]	data consumer	data provider	collaborator	collaborator	co-creator	ideator
[22]		communication	consultation	collaboration	engagement	
[55]	E-informing			E-consulting	E-collaboration	E-empowering
[41]	E-informing	eConsulting	eInvolving	eCollaborating	eEmpowerment	
[34]			political participation in the decision-making	direct attempts to influence the decision-making process		
[21]		Government as Platform (G2C)	Citizen Sourcing (C2C)		Public-Civic Partnership (G+C)	Do It Yourself (C2C)
[28]		government led model	government led model	dual e-Participation model	dynamic Capabilities model	citizen-led model
[42]	eInforming	eConsulting	eDiscussion	eParticipation	eEmpowerment	
[35]	Tokenism			Participation		
[37]	Input Provider	Moderator/Facilitator	Evaluator			Owner/ Initiator/ Decision Maker
[56]	Information		Consultation	Involvement	Collaboration	Empowerment
[36]	eInformative	eConsultative		eCollaborative		

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