

The Influence of Public Values on User Participation in e-Government: An Exploratory Study

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Abstract

In the last decades, governments have strongly increased their use of information and communication technologies (ICT) to improve the service delivery towards their users. However, this development of ICT solutions must be performed in collaboration with the users so that the e-government services are aligned with their requirement and needs. Gathering the input from the users can be performed through the use of different participation methods. The choice of the method is context-specific and public servants tend to lack proper guidance about the appropriate method(s) to use. Public values are at the core of the strategy of the organization and constitute an essential context factor to consider. Therefore, in this paper, we analyze how public values impact practitioners in their selection of development methods of e-government services. Via the analysis of four e-government projects, we examine the relevance of public values as key drivers behind user participation decisions. Furthermore, we formulate recommendations for practitioners to provide guidance in their choice depending on the values they are seeking.

Keywords

User Participation; Public Values; e-Government; Context Factor

1. Introduction

Public administrations increasingly use information and communication technologies (ICT) in an attempt to improve the service delivery towards their users, whether these are citizens, businesses or other public bodies. This ICT use is qualified as ‘e-government’ in the existing literature [1]. In order to answer the concrete problems of their users and to

be aligned with their requirements, the participation of users in the development of e-government services is often qualified as a good practice in this context [2]. This participation can happen at different development stages and can be implemented by means of different participation methods, such as interviews, workshops or surveys. However, civil servants are sometimes reluctant to include the users in the development process. There can be several reasons such as a lack of knowledge about potential methods, a lack of time or other resources, or user input that is considered too complex. Another key challenge, related to the lack of knowledge on potential methods, is the wide variety in existing participation methods [3]. Indeed, some methods are more relevant than others, depending on the specific context (users’ characteristics, their motivation, the organizational culture, the project stage etc.). What is however often forgotten in both public administration and information systems literature, is the relation between the public values sought by the civil servants working on e-government projects and the inclusion of users in those projects. Public values are an important context factor that can be described as ‘normative concepts that are used to give direction to public action and/or legitimize such action’, they steer the direction and choices made by civil servants [4] and are as such also expected to impact the choice on the type of user participation method.

The objective of this paper is to examine the impact of public values on the choice of user participation methods, thereby to understand *how public values impact policy makers in their selection of user participation methods for the development of e-government services*. Since the link between public values and user participation methods has not been documented yet in literature, we performed an

exploratory study with the aid of qualitative and quantitative techniques. We selected four illustrative projects where user participation was applied in an e-government context. To help us understand this link qualitatively, we designed a semi-structured interview guide and conducted one interview per project to get a better understanding of the public values sought by the respondents as well as the participation methods used in the respective projects. To help us understand this link quantitatively, we performed a ranking of the public values for each project. This combination of methods helps us to gain a deeper understanding of the complex phenomenon that is the influence of public values on user participation in an e-government context. This paper contributes at several levels. The examination of several cases where user participation methods were applied and brought benefits for the stakeholders depending on their drivers, allows us to understand the link between public values and participation. From this contribution, we derive a set of management recommendations to help the decision-makers choose which method to implement in their organization depending on the values they aim for.

Section 2 details the literature of user participation and its link with public values in the context of e-government. Section 3 explains the exploratory research method we applied. Section 4 presents the influence of the values on user participation which is then discussed in Section 5. Section 6 presents the limitations and further research leads to answer. Finally, Section 7 summarizes the contributions and provides closing comments.

2. Background

2.1. User Participation

User Participation has always been considered as a key success factor in information systems development as it allows the functionalities of the system to answer to the users' requirements [5]. There exist different participation methods to collect the input of users in the development of information systems. These methods can range from offline techniques to online tools. In a time where citizen-centricity is advocated as the next step for e-government developments [6], the input from the users is essential to integrate. There are eight different participation methods reported in e-government research that are briefly described hereunder [3], [7]:

- **Interviews:** This direct interaction method is used by software developers to gather input from users (often in the requirements engineering phase).

- **Representation in the project team:** Salient intermediary users can be considered as partners to give guidance to key public servants.
- **User workshops:** This method allows the interaction with a selected group of representative users.
- **Answer to surveys:** Online, phone or in-person surveys can be used to collect insights from a large number of users.
- **Dedicated Software:** This method, to be used via online platforms or applications, can be used to collect citizens' ideas and needs.
- **Social Media:** Social Media is considered as a lead to improve software development practices.
- **Innovation Ecosystem:** Insights from potential users can also be collected thanks to new user-driven open innovation ecosystems such as Living Labs or Hackathons.
- **Usability tests on prototypes:** This methods allows to present a non-finished software to its potential users to collect feedback and improve it.

User participation has been a key element in e-government research as e-government services affect a whole ecosystem of stakeholders that has to be taken into account during development [8]. These stakeholders can have different degrees of impact in the development depending on the approach that is followed [9]: user-centered design (low impact), participatory design (medium impact) and user innovation (high impact). However, despite this wide range of methods and approaches, user participation is not always implemented in practice due to some constraints (lack of time, lack of methodological expertise, or a too complex input to integrate) [3]. On the other hand, these methods are sometimes used as a 'silver bullet' hoping that they will solve every development problem [10]. A further analysis of the contextual factors to reach a better situated user participation is thus needed.

2.2. Public Values

Different context factors impact the choice to make use of a participation method and the specific choice of a certain type of participation method. Indeed, context factors will impact the behavior and choices made by the civil servants deciding on user participation methods. These context factors result, among others, from the users' characteristics and motivation [11] the functioning of the public administration [12] or the stage of the e-government project [13]. All those external factors will have an impact on the choices made in the development of information systems, so those factors can be considered to be contextual factors impacting the internal choices.

Previous studies focused on context factors such as the motivation of users [11] or the internal challenges of the organization [12]. However, as indicated by [14] and demonstrated by [15], the relation between public values and e-government policies has been neglected by scholars, both from an organizational and individual, i.e. civil servant, perspective. Also, the relation between public values and participation methods in an e-government context has, to our knowledge, not been researched so far. What has however been researched is the relation between public values and the inclusion of citizens or other users in the co-creation of services. This research has, for example, been undertaken by [4], [16]. So, there is clearly an interest in the topic of public values and participation, but there is also a neglect of the relation between public values and participation methods in an e-government context. This constitutes an interesting research gap as participation is considered as key in information systems development. Therefore we decided to focus in this paper on the relation between the public values sought by civil servants and the influence of those public values on participation methods.

In 1952, [17] provided one of the first descriptions of a ‘value’. The author argued that it is ‘a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desire which influences the selection from available modes, means and ends of actions’ [17]. Whereas this definition correctly points to the higher level rather than individual ideas and thought, the authors’ focus lies however only on values in general and not on *public* values. [18] states that public values provide direction to three relations. It includes ‘[1] the rights, benefits and prerogatives to which citizens should (and should not) be entitled, [2] the obligations of citizens to society, the state and one another; and [3] the principles on which governments and policies should be based’ [18]. This is a highly relevant description as it points to the relation between the public administration and its civil servant in relation to external users, here described as ‘citizens’. This description as such makes the connection to new approaches on user participation methods. Indeed, public values do not only have an internal public administration meaning, but are highly important in steering and regulating the relation with society.

We define public values, in line with [19] as ‘the ideals, coined as principles, to be followed when producing a public service or regulating citizens’ behavior, thus providing direction to the behavior of public servants.’. In this sense, we distinguish ourselves from papers examining public value as an expected outcome of governmental bodies

actions driven by citizens’ expectations [20]. Our specific interest lies in the public values of the public servants involved in the development of information systems. Those public values steer the behavior of public servants, and are as such also expected to influence their decisions on participation methods. Until now, however, and to the authors knowledge, no research has been conducted on what public values, and balances between those public values, influence decisions on participation methods. This paper aims to make a contribution to this fundamental missing link on the relation between the heart of public service and its relation to its users, as ‘the notion of public values is at the heart of good governance’ [19].

On the basis of recent public values research [4], a number of public values have been selected, emphasizing three clusters of public values which are expected to influence the decision on making use of user participation methods. The first cluster focuses on *service delivery*. The public servant might decide to include users in order to increase the quality of the service that is provided towards the users. Secondly, there is a cluster on a *better relationship* between public servants and the users. Focus lies hereby on the respect between both parties in the development of services. The third cluster focuses on the democratic quality and; especially, the perceived willingness of public servants to ensure *better democratic quality*. An overview of the different public values that are related to each of those three clusters can be found in Table 1.

Table 1. Public Values (Source: [4])

Better services	Better relationship	Better democratic quality
Efficiency	Mutual Learning	Participation
Effectiveness	Trust	Empowerment
Quality	Being considerate of clients’ needs: accountable, responsive, and transparent	Inclusion
Satisfaction	Being considerate of clients’ capacities	Social capital
Sustainability	Reciprocity	
	Individual freedom	

It was decided to make use of this typology for three reasons. First of all it is a concise typology which makes it suitable for an exploratory study. Secondly, the typology has been built from theory but has already been used in practice. Finally, and most importantly, the typology was used for

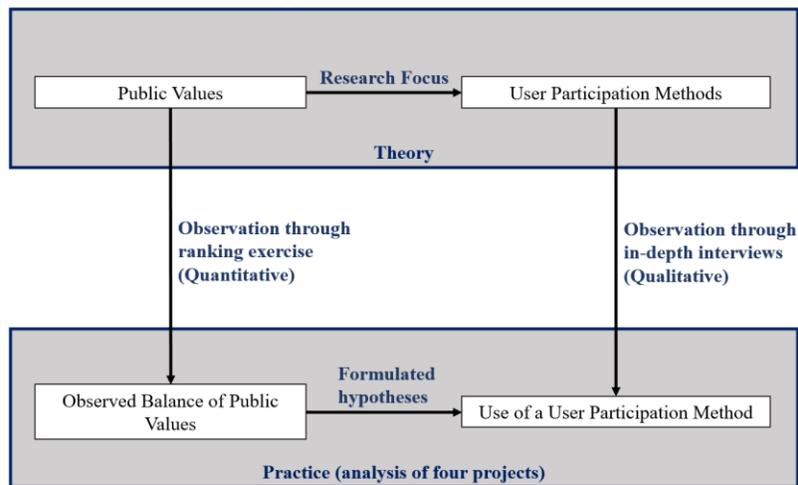
research on participation by citizens in the development of services. This topic is closely related to our research, which makes it highly suitable for application in this research [4].

2.3. Theoretical Model

As indicated above, the aim of this exploratory research is to gain a deeper understanding of the relationship between the public values that are sought in an e-government project and the types of user participation methods which are chosen. This logic is represented in Figure 1. Our research focuses on the hypothesis that the choice of a ‘User participation

Method’ is influenced by the ‘Public Values’ that are sought in an e-government project. As explained above, we relied on the review of [3] for the methods and on [4] for the values. It is important to underline that within one project several user participation methods can be used. According to us, those different user participation methods can be influenced by the different public value clusters. In order to first explore this theoretical link, we chose to study the influence of values on participation methods by analyzing quantitatively and qualitatively four projects.

Figure 1: Theoretical Model



3. Methodology

In order to understand the influence of public values on user participation methods, we performed an exploratory study of four projects to validate the theoretical model previously described [21]. We chose these four projects based on three criteria: It is part of an ongoing e-government strategy, we had knowledge about the implementation of participation methods in the project and finally, we knew different members of all four projects.

A multi-case study research method was taken whereby each project was analyzed qualitatively thanks to two research tools (1) an in-depth interview with a key stakeholder and (2) a quantitative ranking exercise. A multi-case study approach allows to look at various cases as we assume that there is a relation between public values and participation methods, so the same phenomenon but present in different ways, in various cases [22], [23]. The exploratory nature of this study is a consequence of the lack of empirical research on the influence of public values on e-government service development. It can as such be said that an explanatory multi-case study research approach is taken for this research.

To understand the importance of public values within each project, we performed a quantitative ranking exercise where we presented the interviewees with the different values from Table 1 and asked them to rank them in function of their importance they had in the project. We ensure consistency of understandings of the same concepts for all interviewees by providing a definition, based on [4], and answered questions when needed. To further complete this information, we applied a qualitative approach, with a focus on in-depth interviews. This qualitative information helped to understand the importance of public values, the user participation methods used and the relation between the two. In order to perform the interviews, we designed an interview guide (that can be found in the Appendices Section) following research best practices [24]. We first asked general questions about the public values and then specific questions about the participation methods. We made intensive use of probing questions in order to gain knowledge about the public values and avoid that the personal values from the interviewees overlapped with the ones driving the project. Furthermore, we also asked probing questions in order to understand the underlying values

behind the choice of the methods, how it impacted the success of the project and the implementation of the methods. The interviews were analyzed following simple coding by the authors of this paper [25]. To analyze the interviews, the Grounded Theory (GT) approach as described in [26] was used. GT is a well-known research method in qualitative research. It allows for discovering concepts and a fine-grained analysis of the relationships between them, based on the coding of the interview transcripts. In short, it allows for an empirical analysis where data is coded using keywords. For each of the user participation decisions, the identified keywords were categorized into more general concepts (in this case : public values clusters defined by [4]). Finally, relationships between these concepts and the participation decisions were induced from the examination of the four cases. In order to identify these relationships, we reported when the identified keywords were explicitly mentioned by the interviewees as having an impact on their decision about participation.

As stated by [27], this multi-case study approach two research tools (qualitative and quantitative) to have a more informed, complete, balanced, and useful research results. The ranking exercise allowed us to have quantitative data about the public values whereas the interviews allowed us to have information about their impact on development practices and user participation methods [24] This triangulation of sources improves the validity of the results [28]. The four projects are presented in Table 2.

Table 2. Analyzed Projects

Governmental Body	Governmental Level	Date of the interview	Function of the interviewee
Emergency Service ecosystem - National Geographic Institute (Belgium)	Belgian federal level	14/12/2018	Project Manager
City of Namur (Belgium)	Belgian local level	09/01/2018	Head of Data Office
City of La Louvière (Belgium)	Belgian local level	19/12/2018	E-Government Project Manager
City of Linköping (Sweden)	Swedish Local level	07/12/2018	Head of Digitalization

Even though their number is limited to four, these projects offer an exploratory look in line with the objectives of this study as all participation methods were used and all public values were discussed by the respondents. The *first project* focuses on the analysis of the development process of an emergency service tool for high ranked officials during officials summits in the Brussels Capital Region (Belgium).

As a result of the high amount of official summits of the North Atlantic Treaty Organization (NATO) and the European Union (EU) the Belgian Ministry of Interior Affairs (MIA) asked for the development of a precise tracking tool to be used by all Belgian partners involved in the organization of those summits. This tracking tool would allow all involved organizing partners to follow the live movements of high ranked officials. The Belgian Crisis Centre, part of the MIA, organized the development of the tool together with the Belgian National Geographic Institute, an external consultant specialized in agile methodologies and ASTRID, a semi-private organization responsible for emergency service communication coordination which is governed by the MIA. The *second project* focuses on the digitalization of the city of Linköping in Sweden. The main goal of this project (running since early 2018) is to accelerate the digitalization of the municipality and the companies it owns. Three persons are responsible for this: one head of digitalization at strategic level and two business developers at operational level. At the time of this study, the focus was set on building a framework to ensure the development of a coherent strategy in order to answer to the requirements and needs of its users. The *third project* focuses on the digitalization of the city of La Louvière in Belgium, that is running since February 2017. This project aims at improving the internal functioning of the administration as well as the services offered to the users. Three persons are involved in this project: The head of digitalization, the e-government project manager and the process analyst. The focus lies on the development of an online portal for citizens to use. The *fourth project* focuses on the digitalization of the city of Namur in Belgium, that has been running for more than three year. Here also, the project aims to improve the internal functioning through the development of interoperable applications. The main focus currently lies on the improvement of an Open Data portal and an end-to-end rethinking of the data flow in the administration. This is handled by the Head of the Namur Data Office in collaboration with the IT department.

4. Results

In this section we present the balance between the different public values, both at a clustered and non-clustered level among the four projects. Afterwards, we analyze the user participation method(s) decisions made in the four projects and present the drivers between these decisions as explained by the different respondents.

4.1. The Balance of Public Values

In order to answer the research question, which focuses on the causal relation between public values and user participation methods, it is first important to understand how the different respondents balance the different public values: what are, according to the respondents, the key public values that were sought in the projects they worked on? The respondents were asked in to rank the 15 public values, from most important to least important in the e-government project they were working on. By ranking the public values, the respondents also assigned a number of points to each public value: The first public values received 15 points, the second 14 points and so on for the next 13 values. The last value received 1 point. Before going into the public value cluster balance for each individual project, Figure 2 presents the aggregated percentages. We obtained this result by calculating the total sum of points for each of the value clusters for the four projects and by dividing this by the total sum of all value points for the four projects (e.g. ‘Better services’ (BS) received 181 points in total, this was divided by 420 as this is the total number of points to be divided when ranking the 15 public values. This gives 37% in total). What is immediately clear from this balance is that the highest percentage (42%) is dedicated to the public values that fall in the cluster ‘Better relationship’ (BR). This is immediately followed by the BS cluster with 37%. The

cluster ‘Better democratic quality’ (BD) only received 20% of the total points. There is as such, for the four projects together, a clear preference for the BR and BS clusters.

When looking in more detail at the balance of the public value clusters for the four individual projects, as presented in the yellow boxes of Figure 3, then it appears immediately that there is not a single public value cluster that receives more than 50% of the points. Secondly, the Digitalization Linköping project is the only one in which the BS cluster is the one with the highest percentage. The three other projects all three have BR as their main public value cluster. For the Digitalization Namur and the Digitalization La Louvière projects, this cluster is however immediately followed by the BS cluster. Those two projects have as such a more balanced public value approach than the other projects.

Figure 2: Public Value Clusters

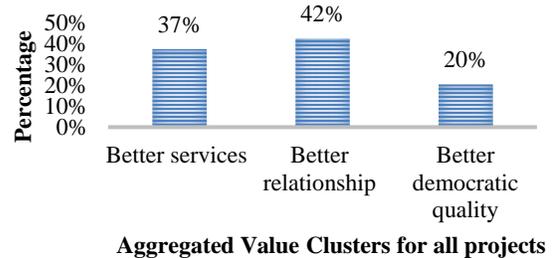
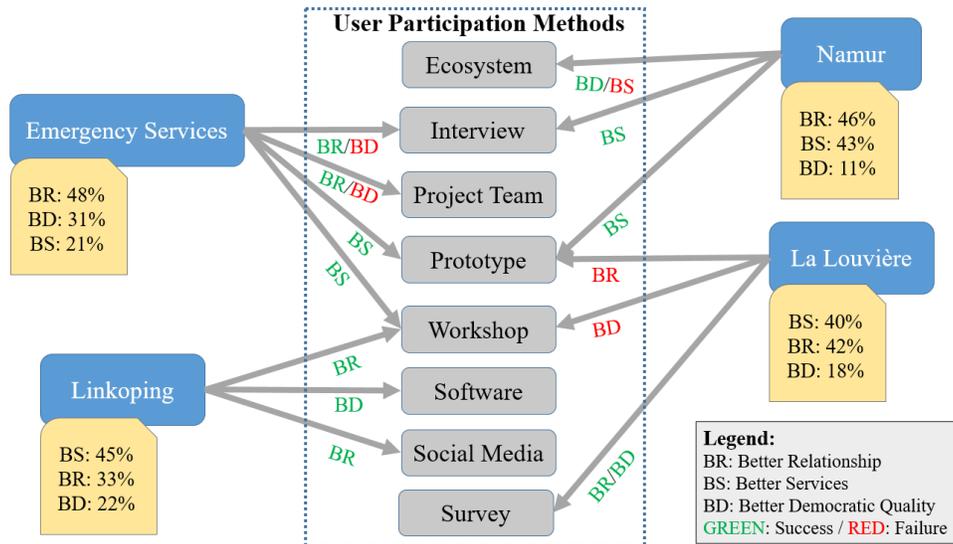


Figure 3: Influence of Public Values on User Participation Methods



4.2. Influence of Public Values on User Participation Methods

This section analyses the influence of the public values previously identified on the choice of user participation

methods. In Figure 3, the reader can find the four cases (in blue boxes), the different participation methods that were used in the four projects (in grey boxes), the public value cluster driving the choices (represented by the labels on the arrows) and whether or not the

interviewees considered that the chosen method successfully implemented the values they aimed for (green for perceived success and red for perceived failure). These drivers were extracted from the in-depth interviews thanks to the GT approach that was used (see 3. Methodology for more information). Regarding the implementation of the chosen values, a better democratic quality seems to be the hardest to reach as three methods failed to do so according to the interviewees. We won't expand further of the success or not of the methods to focus on why they were used. We must also note that all methods were used in a user-centered design manner where users could give their opinion but the decision-making power remained in the hands of the service provider. This ensured consistency to focus on the methods and not on the degrees of participation.

The **Innovation Ecosystem** method was only used by Namur as the city leveraged its open data portals so that students use it to develop applications. It was a mean to increase the participation of users in the public domain (BD) but also a way to collect feedback to improve it (BS). The **Interview** method was used by two projects. For Namur, it was a means to better understand the requirements of the public servants (BS). For the emergency services project, in contrast, it was performed to increase the participation and empowerment of the different stakeholders (BD), to improve their relationship with them (BR), to create more trust (BR) and to ensure that the team would sufficiently take into account client needs and capacities (BR). The **Representation in project team** was only used in the Emergency Services Project. It was deemed highly important to be accountable, responsive and transparent towards the users of the tool, elements which are part of the public value 'being considerate of clients' needs' (BR). Besides being focused on the clients' needs, the team also wanted to be considerate of clients' capacities (BR). Finally, the project team representation allowed to ensure participation (BD) and inclusion (BD). Three projects applied **Usability Tests on Prototypes** but for different reasons. Namur and the Emergency Services used it as a way to improve the service (BS) whereas La Louvière used it as a way to show citizens that the e-government portal is a viable alternative to more traditional procedures (BR). Three projects applied **User workshops** but for different drivers. The Emergency Services project applied it to let

requirements emerge (BS), Linköping aimed at mutual learning between operational and strategical public servants for the digitalization strategy (BR) and La Louvière wanted to include people for each department so that they feel a part of the e-government strategy (BD) Only Linköping used **Social Media** as a way to improve the information delivery to citizens (BR). Only Linköping also used **Dedicated Software** to collect the ideas of citizens to improve the digital strategy (BD). La Louvière used **Answer to surveys** to let citizens give feedback on the portal and give ideas to improve their digitalization strategy (BD). We must also note discrepancies between the quantitative insights on public values and the drivers for the use of participation methods expressed in the interviews. For instance, the main public value category driving the project of Linköping is to reach BS. However, in the interviews, they mostly used participation methods to improve the relationships with their users and the democratic participation of citizens.

5. Discussion

A first element for reflection is the discrepancy in results between the qualitative interviews in which the respondents made a connection between the public values and the user participation methods and the quantitative public values ranking. Indeed, the results show that the user participation methods used and the public values that were sought are not always connected to the results of the quantitative ranking exercise. This is rather surprising, and underlines the need for more research on this topic. At the same time, we try to provide a first potential explanation for this: the quantitative ranking exercise probes the importance of public values throughout the whole project, whereas the qualitative interviews look to the connection between certain user participation methods and public values, which is a more specific aspect of the project. For the project of La Louvière for example, the first public value to achieve within the overall project was 'effectiveness' (part of BS). In the user participation methods that were applied, emphasis was however put on prototype testing, workshops and surveys which fall, according to our research results, in different value clusters, i.e. respectively BR, BD and BR/BD. This could partially explain the difference. Another potential explanatory factor is the fact that working on the realization of a certain public values can lead towards

the realization of other public values. For example, more trust can lead towards greater effectiveness and / or service quality [29].

The results also revealed that for some interviewees such as the city of Linköping, the user participation methods are not considered as an effective way to achieve the main public values driving their projects. However, we argue that it can be an effective way to reach it and we here suggest a decision aid to do so. Therefore, based on the alignment between the balance of values (quantitative) and the methods used (qualitative), we formulate recommendations about the use of specific methods depending on the values driving the organization. We based these recommendations on two sources of insights: (1) the reported success by the interviews in the use of the specific participation methods to reach the targeted cluster of public values and (2) the underpinning of these methods in the scientific literature to reach the targeted cluster of public values. In line with the exploratory nature of this study, these recommendations and ‘one-to-one’ mappings should be further validated and by no means exclude other possible mappings between values and suggested methods.

If the organization aims at reaching **Better Services**, we recommend the use of *interviews* or *prototyping* as they constitutes easy-to-use methods that do not consume a lot of time. Namur, Linköping and the Emergency Services used these methods to collect insights from the users at low cost quite fast. Interviews allow a better understanding of the business domain and to understand the requirements more easily and can be used in the requirements engineering phase easily [30]. On the other hand, prototyping allows a fast presentation of the e-government service to collect feedback on it. If the organization aims at reaching **Better Relationships**, we recommend the use of *representatives in the project team*, *social media* or *workshops*. These methods are more consuming in time but allow for more creative and individual insights gathering. Workshops, as successfully used by Linköping, allow to make users discuss with each other and truly express their voice with the aid of innovative techniques such as visualization tools or improvisation principles [31]. The representation in the team allows to give control over the process to lead users. and therefore enables the process to be transparent to them [32]. In the emergency

services case, it was an effective way to include representatives from key users groups in the project. Finally, Social Media allows to deliver the information also in a transparent way to the internal and external users. [33] discuss the use of social media in software development. If the organization aims at reaching **Better Democratic Quality**, we recommend the use of *surveys*, *dedicated softwares* or *innovation ecosystems*. Due to the larger scale of these methods, we formulate the hypothesis that they would be more appropriate to ensure a representativeness in the democratic participation of users. We must however note that some threats to inclusion would still be present (such as possible bias for the digital literacy). [34] provides an example of survey evaluation by users through online, telephone or in person means. The online survey method was used by La Louvière. In terms of dedicated software, Crowd-centric Requirements Engineering (CCRE) platforms can be used to elicit, negotiate and prioritize requirements of the users and could be applied to e-government service development [35]. Regarding innovation ecosystems, a lot of successful use cases can be found in literature [36]. Namur used it successfully to improve its open data strategy. As a next step of the research, a diagnosis questionnaire to know whether or not to go towards participation and which method to use would be a useful decision support aid for practitioners.

6. Limitations and Further Research

As indicated at the beginning of this paper, this work is an experimental study combining both qualitative and quantitative methods to understand the effect that public values have on the use of participation methods. One limitation to this study comes from the limited number of respondents and cases. A higher number of studies cases from different governance levels, countries and participation methods will be welcome to triangulate these results with other studies. Although we agree that a higher number of interviews would have been welcome, we wish to underline that each of those projects was conducted by a small number of stakeholders. As we especially wanted to interview project participants who had been involved since the start of the project and had been in the project ‘cockpit’, it was necessary to make some concessions on the number of interviews and potential respondents. Another treat to validity comes from the potential overlap between personal values from the respondent

and the public values driving the project. In order to limit this treat, we carefully explained the concept of public values to the respondent and used probing questions intensively. We suggest that further research on this topic focuses on three aspects. First of all, it would be highly relevant to conduct a number of follow-up interviews. Not only with key figures from the projects, but also with people that were involved in the project as partner or end-user only. Secondly, what we also suggest is to further validate the logic of this study as well as the findings via extra projects in which user participation methods have been used. Thirdly, an extension of the theoretical model introduced in this paper would be welcome. We suggest to examine the possible relationship and mutual influence of the “public values” context factor with other context factors that might impact user participation decisions (such as users’ characteristics or national culture). We also suggest to analyze the impact of participation methods on the creation of public value to evaluate the outcome of participation [37], [38]. Finally, whereas this research focused on the impact of public values on the choice for certain types of user participation methods, it would be highly interesting to gain a deeper understanding on the effect of public values on the fact that user participation methods are used at all and to which degree users have gained decision-making power through these methods.

7. Conclusion

By exploring the influence of public values on the choice of user participation methods in an e-government context, this paper contributes at several levels. We provide an understanding on the impact of three public values clusters (better services, better relationship and better democratic quality) on the use of participation methods. The results show that user participation methods can be implemented differently in function of the underlying drivers. Then, we derive recommendations to practitioners about the appropriate method to use depending on the context and the public values driving the organization. The recommendations can be summarized as follows. If the goal is to reach better services, fast and easy-to-use participation methods should be used. If the goal is to reach a better relationship with users, more creative methods that can extract individual insights should be chosen. If the goal is to reach a better democratic quality, large-scale participation methods with high representativeness

possibilities should be favored. These contributions will open new leads for further research on the relation between public values and user participation, on the crossroads between public administration research and information systems research.

Appendices

Semi-Structured Interview Guide (Qualitative)

When were you first involved with project X? How did you get involved ?

What motivated you to participate in the project?

What does the project/organization mean to you?

Which goals are the most important to achieve in the project?

What did you expect from the other participants of the project?

What did you think the result would be?

Is the reality now different from what you initially expected?

What do you think are the most important characteristics that you need to have in order to contribute to the project?

Why does your organization include users in the creation of e-services? At which stage ?

How does your organization include users and how often ?

Why did you choose this particular method ?

Did the method successfully implement the targeted value ?

Can you give me an example in which it is difficult to make a decision? How did you deal with this situation?

Ranking Game (Quantitative)

What are/were the most important values for you in the context of your project ?

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