10. Viewpoints of collaboration partners on user involvement in collaborative innovation projects

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INTRODUCTION

In the last decades, the idea of an interdependent network of public and private institutions, citizens, and third sector organizations participating in policy preparation processes and public service delivery has been gaining support under the paradigm of the New Public Governance (NPG) (Klijn and Koppenjan, 2012; Osborne, 2010; Pestoff et al., 2012). Collaboration has been seen as a solution for the improvement of public services and the recovery of legitimacy. Indeed, collaborative strategies can enhance innovation better than traditional hierarchical and competitive strategies (Torfing, 2019). Collaboration can reinforce all parts of the innovation process, as it allows organizations to access knowledge, resources, experiences, and perspectives that are different from their own (Sørensen and Torfing, 2011). However, collaboration also implies new challenges such as the design of mechanisms for active, balanced, and continuous multi-stakeholder participation or the achievement of efficient coordination between actors with different objectives (Koppenjan, and Koliba, 2013; Osborne, 2010; Torfing and Trianfillou, 2013).

In a collaborative innovation project, two types of actors are typically engaged in the partnership. On the one hand, the partners are the actors who are centrally engaged in the project, and responsible for creating a new public service. These actors can be public organizations or private companies, but also other non-state organizations or individual actors. On the other hand, the service users are the actors who are going to use the newly created service or are currently using similar services. The users can be directly involved in the partnership (e.g., as part of a project team, in testing phases, etc.) or indirectly (e.g., through their adoption of the innovation), but they are primarily characterized as the real-life users of the created service.

These differences in partners' contexts and related levels of involvement of users enrich the partnership, but can also cause friction during the interaction process, particularly in the case where the users are directly engaged in the partnership. For instance, partners and users might disagree in tasks, processes, and roles, or value-related conflicts may arise (Mele, 2011). In the first phases of a project, role-related conflicts can appear as there are differences in the involvement and responsibility that each actor thinks they should have (Mele, 2011). Indeed, each public administration paradigm reveals a different perspective on the users' role in public service delivery (Torfing et al., 2020). Because of these different frames, collaboration partners may have different opinions than users on user involvement, and a conflict that blocks the project may appear.

The purpose of this chapter is to analyse the perspectives of partners of collaborative innovation projects about the involvement of users in partnerships for innovation development. By applying Q-methodology, we contrast four roles of user-provider interaction in co-innovation processes with users (legitimators, customers, partners, and self-organizers) (Callens et al., 2023). The analysis focuses on partnerships for the development of eHealth innovations. These innovations require the collaboration of multiple actors due to the specific knowledge of different areas necessary for their development, the high validation requirements applied, and the complexity of the sector. Many eHealth innovations get stuck in the pilot phase and are never implemented (Andreassen et al., 2015). Previous research has found that to avoid this blockage, it is necessary that partnerships are capable of creating stakeholder networks to integrate resources, mainly knowledge, and have a leadership promoting the interaction and integration of ideas, especially in projects involving user communities (Urueña et al., 2016). Many of the barriers found in the implementation of eHealth innovations are related to user worries and problems, for example, lack of trust, insufficient technological skills, low impact in service quality, and time necessary to learn and use the innovation (Jang-Jaccard et al., 2014). These barriers show that the partnerships for the development of eHealth innovations are not properly integrating user knowledge or achieving a successful collaboration network. This chapter contributes to revealing whether this problem is caused by a low expectation of partners on the role of users or by the inconsistency in the roles expected, for example, incompatible roles or mismatching between the motives for user involvement and their role in the project.

This research was carried out within Work Package 7 of the TROPICO[1] project which studied the practices of external collaboration for service delivery and was funded by the European Union's Horizon 2020 Research and Innovation programme. The chapter is structured as follows. The second section provides the theoretical framework. The methodology applied is

described in the third section. In the fourth section, the results are explained. Finally, the discussion and conclusions are presented.

THEORETICAL FRAMEWORK

Our research is based on three widely accepted public administration paradigms: Traditional Public Administration, New Public Management, and New Public Governance (Torfing et al., 2020), and the notion of self-governance, which is a wider term that comprises situations in which public and private individuals and organizations, on their own initiative, autonomously act to achieve public or collective objectives (Sørensen and Triantafillou, 2009). Each paradigm defines a role of citizens in public service delivery that delimits the possible relation between users and partners in a collaborative innovation project. We consider four roles of user involvement: users as (1) Legitimators, (2) Customers, (3) Partners, and (4) Self-organizers (Callens et al., 2023). Each of these roles supposes different motivations for the involvement, task, and responsibilities of the users, and the role of the service providers and the leader/coordinator of the partnership during the users' involvement. Whereas Callens et al. (2023) apply these roles to the viewpoints of users, this chapter reflects if these roles are also applicable to the viewpoints of the collaboration partners.

Legitimators

From the point of view of the *Traditional Public Administration* paradigm, citizens are only expected to elect public representatives and they have usually no, or very limited direct participation in public service delivery (Bryson et al., 2014; Denhardt and Denhardt, 2007). In this case, the users won't participate actively in collaborative innovation projects; they will just act as *legitimators* to protect user rights and needs and support the innovation. However, even if the involved users do not participate actively in collaborative innovation projects, they are still crucial stakeholders because they represent the common interest of the service users. The leader of the partnership (e.g., the project coordinator), therefore, should give them enough information about the innovation, the achievements of the partnership, and its inner workings, so the innovation is more likely to be accepted (Silvia, 2011). The leader should also protect the regulative framework, as the innovation is not only created for the involved users, but for all users (i.e., common interest instead of individual interest).

Customers

With the introduction of managerial approaches and the focus on efficiency, effectiveness, and competition related to *New Public Management*, citizens and public service users are viewed as individual customers (Bryson et al., 2014; Denhardt and Denhardt, 2007). In this perspective, the focus shifts to consumer satisfaction in service delivery, similar to a business approach in market competition, and the user is viewed as a *customer*. Customers look for the achievement of their individual interests and needs, and not the public interest. In this case, a partnership collaborating to develop an innovation would want to obtain users' knowledge to ensure the developed product or service complies with their individual expectations. Knowledge from customers provides unique information about users' preferences and can improve the new service outcome and the acceptance of the innovation (Mahr et al., 2014). Therefore, the partnership should consult the users about their preferences and the quality they expect from the innovation.

When the partnership involves the users as customers, the tasks of the partnership leader expand. Leaders must ensure the inclusion of input from the consumers, as organizations may fail to include them for various reasons, such as lack of resources, expertise, and time, disillusionment with previous experiences, poor organizational capacity, or organizational culture opposed to their inclusion (Olson and Bakke, 2001). Moreover, the expectations of the users define their incentives to participate (Ansell and Gash, 2008), and the coordinators should make them see the achievement of their individual goals through their collaboration in the network (Silvia, 2011), and let them see how the innovation works in practice, to ensure that users fulfil their individual interest. Indeed, compliance with the expectations of the involved stakeholders influences the success of the collaboration (Ansell and Gash, 2008).

Partners

The third potential role of the user appears when they are included in the collaborative innovation project on an equal footing with the other partners, that is, as another *partner*. This role aligns with *New Public Governance*, where co-production and co-creation of value with citizens and other non-state actors is a core feature (Brandsen and Honingh, 2016; Osborne and Strokosch, 2013; Osborne et al., 2016; Pestoff et al., 2012). This type of collaboration is necessary to achieve an efficient, effective, and democratic public sector (Pierre and Peters, 2020). Indeed, the co-creation of value can occur not only through the fulfilment of users' individual needs, but also through their participation in the design and delivery of the service and their contribution to innovation (Osborne et al., 2016).

If users are included as a partner, co-producing with the rest of the partnership, the leader should identify and incorporate those suitable members who can provide the necessary resources to the partnership (McGuire, 2006; Vangen and Huxham, 2003), in this case the lead users who are ahead of the rest in the market (Von Hippel, 1986). In addition, the partnership must deal with conflicts between partners such as possible discrepancies about their responsibility for the project and conflicts between the value systems of the users and the project organizations (Mele, 2011). Moreover, the alignment or misalignment between the partners' views and the actual role of users in a partnership could reinforce these conflicts and affect the deliberation process. Therefore, the leader should align the goals of partners and involved users and ensure the joint decision making between them for the success of the collaboration.

Self-organizers

Self-governing structures of non-governmental actors can carry out collective action without the interference of the government (Pierre and Peters, 2020). From this perspective, users act as *self-organizers*. Users can be initiators of new services and the government follows their lead (Voorberg et al., 2014) and carries out supportive actions, like providing technical knowledge and funding (Nederhand et al., 2016). Self-governing structures require a trigger that will initiate the interaction of the actors in a network (Nederhand et al., 2016). The lack of consideration of new products and services, or functionalities by organizations, serves as a trigger for users to look for innovation by themselves (von Hippel et al., 2011). These structures need trustworthy relationships, exchange of ideas, information, and experiences in open communication among the actors (Neederhand et al., 2016). The leader of the partnership uses a 'hands-off' approach to the governance of the collaboration, by limiting day-to-day interventions in the project (Sørensen and Torfing, 2009).

Comparison of User Roles

The four roles reflect different levels of user involvement in the projects according to the reasons for their inclusion, the activities they can perform, and how to effectively engage them. Users acting as *legitimators* are external to the projects without active participation in them as they are involved just to improve the acceptance of the innovation. When users' involvement is intended to improve the quality of the innovation, users should participate in the innovation process to provide the partnership with their knowledge as *customers*. In this case, in order to effectively capture and integrate users' knowledge, the partnership should increase the information about the inno-

vation and provide the users with the opportunity to show their desires and needs. However, this role keeps users out of the design and decision-making processes of the project. In contrast, the involvement of users as *partners* implies that their knowledge is presumed to be necessary for the design of the project and that they have the capacity to make decisions at the project level, which may sometimes conflict with the wishes of potential consumers (e.g., decisions regarding the cost-quality ratio of the resulting product or service).

In these three roles, the partnership is 'above' the users, restricting or facilitating their participation. The partnership takes a step back when the users *self-organize*, and just support the users so they can develop their proposals, as the self-organizer users have the required capabilities to direct the project.

These four user roles are ideal representations of user involvement, and does not mean that they cannot be mixed (e.g., the participation of users giving their knowledge as consumers could be motivated for the necessity of the improvement of the acceptance of the innovation), or that users with different roles could not be involved in the same partnerships due to different necessities of the project (e.g., most of them participating as *legitimators* or *consumers* but a smaller group participating as *partners*) or different capacities of the users according to their background (e.g., physicians, nursing staff, or patients).

RESEARCH DESIGN

Q-methodology

This chapter makes use of Q-methodology, which was first introduced by Stephenson in 1930 as a method to distinguish features of individuals, such as their viewpoints (Burt and Stephenson, 1939). Q-methodology enables the factorization of individuals instead of variables on a population of traits, abilities, or characteristics, with the purpose of identifying differences between these individuals (Watts and Stenner, 2012). Because of its ability to differentiate between viewpoints of individuals, it has often been used to identify different discourses of respondents (van Exel and de Graaf, 2005). In recent years, the use of Q-methodology has increased because of its ability to distinguish different viewpoints of respondents regarding policy choices (e.g., Molenveld et al., 2019; Nederhand et al., 2019; Warsen et al., 2019) and citizen involvement (van Eijk and Steen, 2014; van Eijk et al., 2017).

Generally, Q-methodology is conducted in four sequential steps (Watts and Stenner, 2012). First, the *Q-set* is constructed. The Q-set is composed of statements that reflect the different discourses or viewpoints present in the population. Second, the *P-set*, or set of participants, is defined. The P-set represents the individuals that are relevant for the discourses or viewpoints addressed by the Q-set. In our case, the P-set consists of service users related to processes

of collaborative service creation and innovation. Third, the statements defined in the Q-set are applied to the respondents in the P-set by conducting a *Q-sort*. During the Q-sort, the respondents rank the different statements in the Q-set according to the degree to which they reflect their own viewpoints. Fourth, the Q-sorts are analysed through Q-methodological *factor analysis* to separate the common variance between the respondents. Out of this factor analysis, different viewpoints or discourses regarding user involvement emerge.

Constructing the Q-set

The development of the Q-set needs to be rigorous and well thought through, as an inadequate collection of statements in the Q-set decreases the validity of the discourses in the P-set. Watts and Stenner (2012) propose two criteria to enhance the quality of the statements.

First, the statements must be representative of the discourses the researcher wants to cover. Scholars use different techniques to ensure this representativeness. Some researchers refer to academic literature out of which the statements are deductively constructed (e.g., Nederhand et al., 2019; Warsen et al., 2019), while other scholars use exploratory interviews on the topics of the discourses to extract the relevant statements inductively (Molenveld et al., 2019; van Eijk and Steen, 2014). The deductive method enables us to assess the theoretical roles of user involvement, as they are compared to the empirical profiles we get from the Q-sorts. This allows an evaluation of our own theoretical framework, which is the primary reason why we apply the deductive approach in this chapter. In addition, document analysis was used to check how practitioners perceive the different roles of users.

Second, gaps or overlaps between the statements might prevent each statement having an equal contribution to the Q-set. To ensure a balanced Q-set, scholars typically use multiple types of statements. Two methods are typically used. On the one hand, the typology of Dryzek and Berejikian (1993) is often used to distinguish statements according to how they are interpreted by the respondent (Molenveld et al., 2019; van Eijk and Steen, 2014). The authors distinguish between definitive statements ('concerning the meaning of terms'), designative statements ('concerning questions of facts'), evaluative statements ('concerning the worth of something that does or could exist'), and advocative statements ('concerning something that should or should not exist'). The designative and advocative statements are broadly used in public administration research (e.g., Molenveld et al., 2019; Nederhand et al., 2019; van Eijk and Steen, 2014; Warsen et al., 2019), which is why we apply these two types of statements to our Q-set. Statements can also be distinguished from each other based on the dimensions relevant to the study.

The roles of user involvement in our theoretical framework reflected three dimensions: (1) the motives of the users to be involved, (2) the activities the users conduct during their involvement, and (3) the role of the service providers during the user involvement. These considerations resulted in 24 statements, illustrated in Table 10.1. Table 10.1 presents two statements per type of dimension/role, whereby the first statement is a designative statement, while the second statement is an advocative statement.

Defining the P-set

In this chapter, the P-set is largely defined by the types of projects that were considered. We selected 19 projects from the health sector, as this is an established policy field in the co-production literature (e.g., Daya et al., 2019; Gremyr et al., 2018; Sangill et al., 2019; van Eijk and Steen, 2014). This ensured valid cases of user involvement in service creation. Furthermore, the pursuit of innovative eHealth technologies is high on the agenda of the European Commission (European Commission, 2018), while current research insufficiently explains successful eHealth innovations (Andreassen et al., 2015). An elaboration on the selection of cases can also be found in Chapter 8.

The respondents included in the P-set were representing the organizations acting as partners in the collaboration projects – both the public actors (e.g., governments, public hospitals, etc.) and private actors (e.g., non-profits, firms, etc.). A total of 50 partners were identified for the P-set.[2]

Conducting the Q-sort and Factor Analysis

To assure that the statements were valid and easy to understand they were tested in one of the countries (Belgium) through a pilot on respondents with similar profiles to the service users in our study. The sorting of the statements is usually conducted through a fixed structure. We used Q Method Software to conduct the Q-sort and used a sorting structure with values from −3 to 3, indicating the degree to which the respondents identify themselves with a particular statement. The respondents were first asked to presort the statements into three piles: statements they generally agreed with, statements they generally disagreed with, and statements towards which they were neutral. Next, the respondents were asked to rank the statements from −3 to 3. Once all responses were gathered, a factorial analysis was carried out with four criteria for the selection of the factors: Kaiser-Gutmann criterion, variance, cumulative variance, and significance of factor loadings.[3]

Table 10.1 The Q-set

Dimensions/Roles	Legitimator	Customer	Partner	Self-organizer
Motives to participate	Users should be involved primarily to create support for the innovation	Users want to be involved primarily to indicate what they perceive as an exquisite end product	Involved users especially want to be recognized as partners	Users should tackle user issues themselves instead of waiting for others to do it
	Users are especially involved to check whether the rights of those they represent are guaranteed	Involved users should above all check how user-oriented the innovation is	Users should be involved because they can have alternative views, useful for the other partners	Users know best how to develop and organize service delivery
Activities of involved users	The majority of users is there predominantly to listen to what the partners have to say	Involved users have to advise the partnership about how to increase user satisfaction	Users and the other partners should jointly define the problem and the solution	Users can best define problems and solutions
	Users best leave development of innovations to others	Just like a company asking its customers about its products, the partnership needs to consult the users about their preferences	Equal contributions of users and other partners (co-creation) is the only way to create relevant innovations	Users should set and guard the direction for the innovation process

Dimensions/Roles	Legitimator	Customer	Partner	Self-organizer
Role of partnership towards user involvement	The users should be well informed by the partnership because the innovation can then be easily accepted	The partnership should enable the involved users to see how the innovation works in reality	A crucial task of the partnership is to ensure joint decision making between the involved users and the other partners	The main role of the partnership is to provide the resources to develop proposals for the users
	The partnership actors are there to make sure that the input of the users and other actors certainly does not go against the regulative framework (e.g., legislation)	The principal concern of the partnership is letting involved users voice what quality they expect from the innovation	The partnership should primarily align the different goals of the involved users and the other partners	The partnership should maximally give room to the involved users to develop their own proposals for the innovation

RESULTS

After the factorial analysis, two factors remained that, explain 38 per cent of the total variance. The factors are illustrated in Table 10.2. They represent two groups of respondents who gave similar values to the statements. The distribution of the statements of each group represents a different profile on how partners think users should be involved in public-private collaborations. These values show the level of agreement with each of the roles. A positive value means that the respondents agree with the statements and a negative value means that they disagree with them. In addition, the interpretation of each statement should also be done according to the profile as a whole, not only its individual value and the pre-designated role of the statement. In the following, the main observations from the Q-methodological analyses for each of the empirical profiles are presented.

Output-oriented User Involvement

Table 10.2 shows that the statements in Profile 1 are especially aligned with the customer and partner roles as they gave a positive value, or at least not negative, to most of the statements. According to the respondents within this profile, users should be particularly involved because they can introduce alternative views and check how user-oriented the innovation is. In this viewpoint, the respondents expect the partnership to consult the users about their preferences, and to align the different perspectives of the users with each other. The

Table 10.2 Empirical profiles

	Dimension	Statement	Profile 1	Profile 2
Legitimator	Motives	Users should be involved primarily to create support for the innovation	0	0*
		Users are especially involved to check whether the rights of those they represent are guaranteed	−1	−1
	Activities	The majority of users is there predominantly to listen to what the partners have to say	−3*	−3*
		Users best leave development of innovations to others	−2*	-2*
	Role of service provider	The users should be well informed by the partnership because the innovation can then be easily accepted	1	1
		The partnership actors are there to make sure that the input of the users and other actors certainly does not go against the regulative framework (e.g., legislation)	0*	−2*
Customer	Motives	Users want to be involved primarily to indicate what they perceive as an exquisite end product	1*	0*
		Involved users should above all check how user-oriented the innovation is	2*	−1*
	Activities	Involved users have to advise the partnership about how to increase user satisfaction	1*	1*
		Just like a company asking its customers about its products, the partnership needs to consult the users about their preferences	2	2
	Role of service provider	The partnership should enable the involved users to see how the innovation works in reality	1	1
		The principal concern of the partnership is letting involved users voice what quality they expect from the innovation	0*	−1*

	Dimension	Statement	Profile 1	Profile 2
Partners	Motives	Involved users especially want to be recognized as partners	0	−1
		Users should be involved because they can have alternative views, useful for the other partners	3*	1*
	Activities	Users and the other partners should jointly define the problem and the solution	0*	3*
		Equal contributions of users and other partners (co-creation) is the only way to create relevant innovations	−1*	2*
	Role of service provider	A crucial task of the partnership is to ensure joint decision making between the involved users and the other partners	0	1
		The partnership should primarily align the different goals of the involved users and the other partners	2*	2*
Self-organizer	Motives	Users should tackle user issues themselves instead of waiting for others to do it	−2*	0*
		Users know best how to develop and organize service delivery	−2*	−1*
	Activities	Users can best define problems and solutions	−1*	−1*
		Users should set and guard the direction for the innovation process	−1*	−1*
	Role of service provider	The main role of the partnership is to provide the resources to develop proposals of the users	−1	−2
		The partnership should maximally give room to the involved users to develop their own proposals for the innovation	1*	0*

Note: * Distinguishing statements (i.e., statements that are significantly differently ranked in one factor as opposed to the other factors, with $p < 0.05$).

involved users should also advise the partnership to increase user satisfaction, while the partnerships should enable the users to see how the innovation works in practice. Users are therefore also primarily involved to indicate what they perceive as an exquisite end product. However, the partnership should also give maximum room to the involved users to develop their own ideas and should inform the users, so the innovation is more easily accepted.

On the other end of the spectrum, we find statements with which the respondents identify themselves the least. The respondents with Profile 1 disagree with most of the statements of legitimator and self-organizer roles and only gave a positive value to one statement of each of these roles. For

instance, the respondents do not think that users are involved to check whether the rights of those they represent are being guaranteed. Also, they do not think that the main purpose of the partnership is to provide resources with which the users can develop their own ideas, or that co-creation is the only way to create relevant innovations. Users should also not set and guard the direction of innovation processes, and they are not best at defining problems and solutions, according to these respondents. Furthermore, the respondents indicate that users should not tackle user issues themselves, and they should also not leave the development of innovations to others. These respondents also do not think that the users know best how to develop and organize service delivery, and that the users are predominantly involved in these collaborations to listen to what the other respondents have to say.

In line with the observations indicated above, the highly ranked statements that match the 'partner' role might also have been perceived by the respondents from the perspective of output-oriented user involvement. Indeed, the respondents might view statements that point to a more active role of the users as more effective towards achieving the proper end product (e.g., 'users should be involved because they can have alternative views, useful for the other partners' and 'the partnership should primarily align the different goals of the involved users and the other partners'). Similarly, statements that were part of the legitimator role and the self-organizer role, but were highly ranked in this profile, might be necessary from the perspective of the respondents in order to obtain the required information from the users to develop the end product (e.g., 'the users should be well informed by the partnership because the innovation can then be easily accepted' and 'the partnership should maximally give room to the involved users to develop their own proposals for the innovation'). Taken together, if the users are not sufficiently informed by the partners, they will most likely also not contribute much to the end product. Similarly, if users are not enabled to develop their own proposals, it might be difficult for the partners to obtain new perspectives and create an innovative end product.

In summary, the viewpoints of the respondents in the first empirical profile are directed towards user involvement as a means to enhance the end product. Users are beneficial for the partners because they can introduce new knowledge, experiences, and perspectives which are useful for service innovation. User involvement has a functional purpose in the perspectives of these respondents, and is, hence, viewed as a means to an end.

Process-oriented User Involvement

Table 10.2 indicates that the statements in Profile 2 are particularly oriented towards the partner role, as the respondents gave a high value to most of the statements of these roles. Some statements of the customer role related to the

activities of the users are also highly ranked in this empirical profile but most of the statements related to motivations and the role of the service provided have a lower value than in Profile 1. If we synthesize the statements that are highly ranked in this profile, it seems that the respondents view user involvement as a way to influence the innovation process, rather than its outcome. Indeed, the positively ranked statements refer to the way in which users can contribute during the innovation process (e.g., by contributing alternative views, advising the partnership, jointly defining the problem and solution, co-creating, joint decision making, and goal alignment). Even the statements that are aligned with the customer role might have been perceived by the respondents as a way to influence the innovation process. For instance, two-way communication activities such as advising/being consulted by the partnership is a way to actively engage in the innovation process and become part of that process. Similarly, a positive ranking of the statement 'The partnership should enable the involved users to see how the innovation works in reality', might mean that the respondents in this profile prefer to be engaged in the co-design process of the innovation.

The negatively ranked statements confirm that the respondents in Profile 2 prefer an active process role of the users in the partnership. Indeed, all the negatively ranked statements correspond to a passive role of the users, with limited responsibility. The respondents in this profile disagree that (1) the users are primarily involved in the partnership to check whether their rights are protected, (2) the users only need to listen to the partners, and leave the development of innovations to others, and (3) the partners are present in the partnership to make sure that the proposals of the users are not going against the regulative framework. These statements confirm that the respondents in this profile are not interested in a passive role for the users and that they expect a contribution from the users in the innovation process. However, they do not envision a very active user role with great responsibility in the innovation processes. Indeed, the statements that reflect the self-organizer role are negatively ranked. According to the respondents in this profile, involving users in the innovation process means that they are working together with the other partners instead of leading and directing the innovation process themselves. Hence, they value the input of the users during the innovation process but do not believe that the users should be organizing the innovation process themselves.

One statement that is negatively ranked in Profile 2 necessitates some extra explanation. The statement 'Involved users especially want to be recognized as partners' is the only statement related to the partner role that is negatively ranked. This is rather remarkable as the statement fits with the other, positively ranked statements of the partner role. However, the respondents in this profile might have interpreted the statement as a wish of the users to receive recognition or perhaps even status with their participation in the innovation process. It

is clear from the negative ranking of this statement that the respondents in this profile do not believe that users are participating in the innovation process in order to be 'appointed' as real partners. The activities of the users are, according to these respondents, more important to guide the users' motives than the particular way in which they are recognized.

In summary, the respondents who adhere to the second empirical profile believe that users should be actively involved in and contribute to the innovation process. User involvement should, according to these respondents, be oriented towards the interaction and collaboration dynamics in the innovation process, rather than the expected or desired output of that process. This view on user involvement is also confirmed by the distinguishing statements, which are indicated in Table 10.2 with an asterisk.

Distribution of the Profiles

Table 10.3 illustrates the distributions of the Q-sorts over the types of actors (i.e., public/private partners and the specific types of involved organizations) and the countries of origin. The table shows that public and private partners are roughly equally distributed over the two empirical profiles. Something similar is the case for the distribution of the consultant/firms and governments. However, we can also observe that almost three times as many respondents from healthcare organizations (e.g., hospitals) adhere to Profile 1 as opposed to Profile 2. We see the opposite for the healthcare providers, of which three times as many adhere to Profile 2 in comparison to Profile 1. With regard to the countries, we observe a prominent difference between Belgium, on the one hand, in which the respondents adhere more to Profile 1, and Denmark and Estonia, on the other hand, in which the respondents adhere more to Profile 2. The respondents in the Netherlands and Spain are more evenly distributed over the two profiles than those in the other countries.

DISCUSSION AND CONCLUSION

This research shows co-existing views on the roles of user involvement in collaborative eHealth innovation projects. We obtain two profiles of collaboration partners. Respondents of both profiles agree on the active participation of users in the projects but reject the self-organizer role of users, that is, the idea of a self-governed structure with the users as initiators and where the partnership has a secondary role, particularly established to support the users in developing their ideas. The partners' views on user involvement show that they are somewhere in between viewing the users as 'customers' from a *New Public Management* paradigm and partners from the network collaboration and co-production perspective related to the *New Public Governance*.

Table 10.3 Descriptive statistics

Type of partner	**Profile 1**	**Profile 2**	**Rest**	**N**
Public partner	43.33%	33.33%	23.33%	30
Private partner	45.00%	40.00%	15.00%	20
Type of organization	**Profile 1**	**Profile 2**	**Rest**	**N**
Consultant/firm	37.50%	43.75%	18.75%	16
Government	37.50%	31.25%	31.25%	16
Healthcare organization	69.23%	23.08%	7.69%	13
Healthcare provider	20.00%	60.00%	20.00%	5
Country	**Profile 1**	**Profile 2**	**Rest**	**N**
Belgium	78.57%	7.14%	14.29%	14
Denmark	20.00%	60.00%	20.00%	5
Estonia	0.00%	60.00%	40.00%	5
Netherlands	41.67%	25.00%	33.33%	12
Spain	35.71%	57.14%	7.14%	14

Some respondents are in favour of the involvement of users, because of the potential of the users to improve the quality of the output. By ensuring that the insights of the users are included, the respondents believe that the innovation will be adopted more quickly by the users. These respondents follow the logic of New Public Management (Bryson et al., 2014; Denhardt and Denhardt, 2007), in which the consumers are motivated to participate by their individual interests as consumers, and the partnership must align the goals of the partners with those of the users to ensure that the resulting service complies with them. These respondents believe that consumer tasks should aim to provide information on consumer preferences and explain how best to meet their needs. In fact, this knowledge of consumers can improve innovation and its acceptance (Mahr et al., 2014). From an *output-oriented* perspective on user involvement, these collaboration partners view users as important contributors to the final end product of the innovation process. This role of users does not make them participants in the internal deliberation process of the partnership, so the possibilities of conflicts with the partners are lower. In this case, the effort of the leaders should focus on the inclusion of input from the consumers as the partnership may fail on this task for various reasons (i.e., lack of resources, expertise, and time or poor organizational capacity) (Olson and Bakke, 2001).

However, other respondents believe that users need to be involved because they can enhance the collaboration and innovation process itself. These respondents think that co-creation is necessary to obtain relevant innovation, which is in line with the *New Public Governance* paradigm (Brandsen and Honingh, 2016; Osborne and Strokosch, 2013; Osborne et al., 2016; Pestoff

et al., 2012). These respondents also agree that users should participate by providing information about their preferences but increase the tasks on which they should be involved (i.e., in the definition of the problem and the solution). Such a *process-oriented* perspective on user involvement means that collaboration partners view users as important facilitators of the innovation process itself. This role of users means that they will be more intensively involved throughout the process, which also opens the possibility to more conflicts in the deliberation process of the project because of the discrepancies between users and partners. The involved users might have a weaker position in the partnership than the partners, and the leaders or coordinators of the partnership should empower and represent them, so their opinions are considered (Ansell and Gash, 2008).

In addition to customer-related tasks, both profiles agree on the importance of communication with the users through partnerships and showing them how the innovation works in practice. These issues may be related to the necessity of information to accept the innovation and see their individual goals achieve through their collaboration in the network (Silvia, 2011).

The profiles are not mutually exclusive as users with different characteristics (e.g., background or time availability) could have different roles in the project. Moreover, *output-oriented* user involvement can be easily instrumentalized to enable the participation of a large number of users (e.g., concept tests or satisfaction surveys) while *process-oriented* user involvement does not, as it could make the consensus-building process in the partnership challenging. Indeed, these profiles could complement each other as users involved according to *process-oriented* profiles could use the knowledge provided by the rest of the users involved to support their opinion in the decision-making process and ensure that this knowledge is correctly integrated.

The collaboration partners who support each profile show different characteristics to some extent. Healthcare organizations are more in favour of *output-oriented* user involvement while healthcare providers align more with *process-oriented.* Healthcare organizations may have a more comprehensive view of all healthcare processes and doubt the ability of users to consider all factors related to innovation (e.g., financial sustainability). In contrast, healthcare professionals often have no management responsibilities and, as such, are not responsible for overarching management decisions that affect the whole organization, so they may be more inclined to give users a larger role. Additionally, these different partners' viewpoints might be explained by differences in culture, institutions, or policy between countries. Respondents from Belgium, which has a Napoleonic administrative tradition (Pollitt and Bouckaert, 2017), are less inclined to citizen participation and are more aligned with *output-oriented* user involvement. Indeed, Belgian public organiuzations collaborate in innovation processes far more frequently with other govern-

ments or private sector organizations than with citizens and users (Verhoest et al., 2020). On the other hand, most respondents from Denmark, which has a stronger tradition of engaging citizens (Pollitt and Bouckaert, 2017), support *process-oriented* user involvement. The case of the respondents from Estonia could be explained by the projects' and partners' specific characteristics more than by country-level characteristics.

The differences between partners' viewpoints on user involvement could lead to role-related conflicts (Mele, 2011). In such cases, consensus building might be more challenging and will need the assistance of strong leaders in the project (Ansell and Gash, 2008). Hence, besides identifying and incorporating the right members for the partnership, the project coordinator should consider the different users needed depending on the vision of the partners, to avoid any misalignment between the viewpoints on user involvement of the partners.

Conflicts could also emerge between the users involved and the partners. This research only considers partners' viewpoints and further research could compare users' and partners' viewpoints on user involvement, in order to reveal possible conflicts regarding the role expected by users and what the partners are willing to accept. This research shows the co-existence of two public administration styles regarding user involvement (New Public Management and New Public Governance) but discards other considerations of user involvement. The 'self' in the concept of self-governance concept includes a wide variety of public and private actors (Sørensen and Triantafillou, 2009). However, the rejection of partners to consider users as initiators or leaders of the innovation process shows a limit to user involvement in self-governed structures. This restriction might be because of the advanced knowledge requirements in information and communication technology and health, necessary for the development of eHealth innovations and the complexity of the healthcare sector. Further research could extend this research to other fields to test whether partners' views are common or depend on the field of the innovation project.

NOTES

1. The TROPICO project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 726840. For more information: https://cordis.europa.eu/project/id/726840
2. Although Q-methodology requires a proportional number of respondents for a given number of statements (most often a 1:1 ratio) (Watts and Stenner, 2012), we chose to include more respondents because of the inherent variance in our research design (multiple countries, multiple types of actors in the partnerships, multiple types of eHealth services). A small P-set might have been insufficient to capture the large variety of the projects. Furthermore, studies conducted in

multiple countries generally consider larger P-sets, and manage to obtain valid results (e.g., ratio of 5:1 in Warsen et al., 2019).

3. The Q-sort data was analysed using the Q-methodology package KenQ, which calculates the correlation matrix, the eigenvalues, and the factor loadings from the data. Three cumulative measures are important to decide which factors are strong enough to be retained. First, we used the Kaiser-Gutmann criterion, which proposes that factors should have an eigenvalue equal or greater than 1 before they are retained (Watts and Stenner, 2012). Second, we only retained the factors which possessed at least two factor loadings which were statistically significant (calculated by $1.96 \times \frac{1}{\sqrt{Number\ of\ items}}$, $p < 0.05$; Watts and Stenner, 2012). Third, a factor was only retained when the explained variance of the factor was at least 7 per cent and the cumulative variance of the selected factors was larger than 30 per cent (Molenveld et al., 2019). Additionally, varimax factor rotation was used to interpret the factors correctly (Watts and Stenner, 2012).

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