Collaborative Innovation in the Public Sector – New Perspectives on the Role of Citizens?

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Abstract
Collaborative innovation in the public sector is increasingly used as a strategy for balancing citizens' rising expectations for public services with limited public resources. This article suggests that public polices construct citizens as clients, consumers, or co-producers and thereby encourage or discourage certain behaviours, with different potential contributions to innovation. The article conceptualises a new role, that of citizens' as co-innovators, and offers an analytical model that can be used in future studies of how public managers can act as civic enablers by creating different spaces for public innovation on the basis of the applicable citizen role.

Introduction

Many Western governments confront the challenge of rising citizen expectations for public services at a time when public resources are limited (Pestoff, Brandsen, & Verschuere, 2012; Warren, 2009). Moreover, there has been growing recognition of government's inability to cope with complex governance challenges singlehandedly and of the inadequacy of traditional forms of top-down management, especially for dealing with 'wicked problems' (Sørensen & Torfing 2011; Hartley et al. 2013; Osborne 2009). At all levels of government in the Western Public sector innovation is rapidly becoming a preferred response to key challenges of public governance (Ansell & Torfing, 2014; Bason, 2010; Bekkers, Edelenbos, & Steijn, 2013; Hartley, 2005; Lévesque, 2013; Mulgan & Albury, 2003).[1] In the Danish context, these initiatives are being launched as new attempts at instituting co-production (in Danish *samskabelse)* or co-creation. Although there is no consensus on the definition or contents of these initiatives, they refer to novel ways of creating and providing public services. These tendencies are also reflected in the other Scandinavian countries where national strategies are being formulated to renew public services, such as in Sweden (Regeringskansliet 2012: 41) and Norway (Helse og Omsorgsdepartementet 2014).

In a Scandinavian context, MEPIN (Measuring Public Innovation in the Nordic Countries) research programmes under the Nordic Council have studied various forms of public sector innovation as well as their incentives, processes, and impacts. In a Scandinavian context,

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grammes under the Nordic Council have studied various forms of public sector
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sought to improve understanding of the implications of these forms of innovation
and of how public sector organisations can promote them. In a European context,
research programmes such as PUBLIN (Innovation in the Public sector),
INNOSERV (Social Services Innovation), SSI (Social Innovation in Europe,
SIE), and CLIPS (Collaborative Innovation in the Public Sector) are among the
recent attempts to develop new knowledge concerning potential for public sector
innovation.[2] The numerous studies currently underway suggest that public inno-
vation is high on the political agenda in many European countries.

In this article, we study *collaborative innovation* in the *public* sector, a par-
ticular form of innovation that emphasises multi-actor and multi-institution col-
laboration, thereby ensuring that public innovation draws upon and brings into
play relevant innovation assets in terms of knowledge, imagination, creativity,
resources, transformative capacities, and political authority (Torfing & Sørensen
2012: 2; drawing upon Bommert 2010). Our understanding of collaborative
innovation draws upon Hartley et al. (2013: 822), who describe collaborative
innovation as "a complex and iterative process through which problems are
defined; new ideas are developed and combined; prototypes and pilots are de-
signed, tested and redesigned; and new solutions are implemented, diffused and
problematized." Innovations are described as changes that "break with estab-
lished practices and mind-sets of an organization or organizational field" (Ibid.).
Innovation furthermore includes adaptation of others' inventions, meaning that it
is the degree of implementation that determines whether or not something is
innovative (Roberts & King, 1996; Hartley et al. 2013).

A common theme in many of the projects and initiatives in relation to col-
laborative public sector innovation is that citizens are seen as important contribu-
tors in the creation of public value. The field of collaborative public innovation,
including the specific role of citizens in such processes is still under-theorized
(Hartley, 2014), making it relevant to further conceptualise the role of the citi-
zens in such processes. Furthermore, only limited attention has been paid to
promoting public innovation by creating and enhancing arenas where citizens, as
well as professionals and politicians, can co-innovate. Our aim is therefore to: 1)
make a conceptual contribution to understanding the role of citizens in collabora-
tive public innovation and 2) to offer some reflections on institutional aspects to
promote citizen-driven collaborative public innovation as well as collaborative
public innovation co-created with citizens.

While there is a research gap regarding citizens' roles specifically in collab-
orative innovation processes, various strands of literature offer inputs for further
conceptualisation. Over the past decade, a large number of concepts designating
a more active role for citizens have proliferated within different fields of litera-
ture (Clarke & Newman, 2007; McLaughlin, 2009). In particular the notion of
co-production (Alford, 2009; Pestoff, Brandsen, & Verschuere, 2012) has gained
widespread acceptance as a way of designating collaborations between govern-

ment agencies and actors from the private or third sector. The concepts of *co-creation* (Bason, 2010) and *co-design* (Hillgren et al. 2011; Björgvinsson et al. 2012; Bradwell & Marr 2008), drawing upon design thinking and participatory design traditions, are also used to designate how citizens can, as public consumers, engage more directly in the production of new public services and thereby become the locus of value creation (Prahalad & Ramaswamy, 2002). This has inspired a number of public administration scholars to experiment with design thinking and involve citizens in more interactive dialogue processes, resulting in the development of prototypes and experiments that follow the axiom of 'fail faster, succeed sooner' (Bason, 2010; Boyle, Slay, & Stephens, 2010).

These many labels, which are sometimes used interchangeably, also indicate a need for more conceptual clarity, nuance, and precision when understanding and developing more active and innovative citizen roles. We use *co-innovator* (Brand, 2005) as an umbrella term for the role of citizens in collaborative public innovation processes in order to emphasise the focus on *innovation* in collaboration between citizens and public entities. We argue that if the aim is specifically to exploit citizens' potential to engage in collaborative innovation processes and thereby create public value, it is important to reflect upon the ways in which citizen involvement is planned and takes place and the roles in which the involvement process stage the citizens.

In line with Sirianni (2009), we argue that public authorities play an important role as civic enablers in designing the arenas and opportunity structures for participation. The ways in which citizens are perceived and the roles they are offered as, for example, passive clients or demanding customers, are of great importance for the extent to which and the ways in which citizens can drive public innovation forward (Thomas, 2012). In order to understand the possible roles of citizens in collaborative innovation, it is vital to understand which roles citizens are offered in contemporary public administration. We therefore review the research literature and investigate what lessons can be drawn, thereby paving the way for a more nuanced staging of citizens' involvement in public innovation.

In the following section, we first describe how different contemporary discursive perceptions and institutional framings of the roles of citizens (*clients, customers,* and *co-producers/co-creators*) contribute to public sector innovation. We then analyse and develop the emerging role of citizens as *co-innovators*, building upon case vignettes derived mainly from the authors' participation in the Danish research programme *Collaborative Innovation in the Public Sector* (CLIPS) and on related scholarly literature concerned with collaboration between citizens and public administrations. We do so in order to create a more precise and stringent framework both for understanding and enabling citizen roles in collaborative public innovation.

Citizens as clients, customers, and co-producers/co-creators: Reviewing the roles of citizens in the literature

In this section, we consider how the contemporary research literature conceptualises and perceives the roles of citizens. We hereby argue that every conceptualisation implies different notions and expectations concerning how actively and to what degree citizens or users should have a say regarding the services they receive and the policies that affect them.

Based on the scholarly literature on citizen participation and new forms of governance, we can identify a significant shift in perceptions of the roles of citizens in public management and administration over the past fifty years (Aberbach & Christensen, 2005; Carpini et al., 2004; Harris & Thomas, 2011). The roles differ relative to how active citizens are expected to be in public management and innovation processes. Each role is linked to different conceptions of democracy and a certain mode of governance: Traditional public administration (TPA) tends to position the citizen as a *client*, New Public Management (NPM) mostly regards the citizen as a *customer*, and New Public Governance (NPG) grants a more active role and positions the citizen as *co-producer* (Osborne & Strokosch, 2013). It is important to note that these governance modes are not mutually exclusive and can exist as 'archaeological layers' with different emphases, depending on the institutional set up and culture (Poulsen, 2009). In the following, we will briefly describe each role in relation to its contribution to public sector development and innovation. This article argues that public innovation can occur regardless of citizens' roles but that contributions to innovation from citizens and stakeholders will be more substantial if citizens' role as *co-innovators* is managed and developed.

Citizens as clients

Until the 1980s, the role of the citizens was closely associated with the classic liberal conception of democracy that dominated TPA. From this perspective, on the input side in public policy, citizens have the opportunity to express their preferences as voters by means of elections and in public debate (voice) (Clarke, 2006; Hirschmann, 1970) or as individuals or members of a political party or pressure groups. Their contribution to public policymaking thus took the form of participation in parliamentary elections and referendums. Between elections, citizens were generally given the role of clients, that is of relatively passive objects of governance, who were not expected to perform any policymaking activities, though they could give 'voice' during the throughput stage by participating in public debates (Hirschmann, 1970). This perspective saw citizens as objects of public governance, while politicians and professional administrators set the agenda for public sector development.

This had a number of advantages and disadvantages for *contribution to public sector innovation*. Processes that take place without citizen inclusion have the advantage of maintaining the parliamentary chain of policymaking, so that democratically elected politicians can impose their visions on society. In practice,

however, it is often public administrators who act as *primus inter pares* (Torfing, 2010: 406), with the result that highly qualified professionals are the primary contributors to public innovation. A disadvantage is that there is a great risk that the developed policies and services will not fulfil citizens' needs. Research shows that the conception of citizens as clients has at least until recently been quite common among public employees in Denmark (Sehested, 2003), with the practical result that many public servants neither want to nor feel sufficiently confident to collaborate directly with citizens (Bryer, 2009; Voorberg et al., 2014). The strengthening of collaborative innovation processes would require many public servants to change their conception of the role of citizens.

Citizens as customers

In many Western countries, New Public Management (NPM) reforms introduced a more active role for citizens, inspired by the role of consumers in the market (Clarke, 2006; Lucio, 2009). The theory behind NPM holds that responsiveness to consumer preferences is an important technique for improving public services (Aberbach & Christensen, 2005). From this perspective, citizens can influence public policies, primarily as a 'corrective' on the output side, by 'exiting' and selecting between different public service providers. The problem with the NPM perspective is that citizen knowledge that could serve as valuable input to the development of public policies is lost when citizens choose to exit public services. In many ways, the customer role can be seen as a reaction against the passive client role described above.

The customer role can *contribute to public sector innovation* in different ways. On one hand, when citizens choose between services, they express their preferences and thereby force public service producers to satisfy these preferences (Newman & Clarke, 2009). On the other hand, institutions gain very little knowledge as to why citizens choose one service over another (Langergaard, 2015), so that the input to service improvement is limited. Furthermore, the customer role enables a narrow, individualistic, and service-oriented approach to public governance that makes it difficult to engage citizens as a group in identifying and implementing public development and innovation (Brand, 2005).

Citizens as co-producers/co-creators

The New Public Governance (NPG) perspective is characterised by the granting of a more active role to citizens (Osborne & Strokosch, 2013; Osborne, 2010; Pestoff et al., 2012). Citizens are perceived as potential partners and their contributions as valuable input for improving and developing public services and policies. The growing pressure on the public sector to solve a greater number of increasingly complex tasks, so-called 'wicked' problems, is one of the reasons why several Western European public sectors have begun focusing on co-production (Boyle et al., 2010; Pestoff, Brandsen, & Verschuere, 2012b; Voorberg et al., 2014) in which citizens, among others, play an active role as co-producers/co-creators who employ their experience-based knowledge.

The co-producer/co-creator role can *contribute to public sector innovation* by mobilising citizen resources and knowledge to develop policies and services. Whereas the customer role primarily contributes to the development of services through choice and exit, the co-producer role contributes more substantial information to the development of services. The main disadvantage is the inherent demand for citizens' time and resources. Furthermore, studies show that active citizen participation processes tend to be dominated by a very narrow segment of the population and exclude less resourceful groups and their knowledge (Carpini et al., 2004). Besides, resourceful citizens are as likely to contribute to the conservation of the status quo as to participate in creating change and innovation (Osborne & Strokosch, 2013).

Co-existence of the three roles

The client role is still prevalent in large parts of the public sector, in which professional expertise still defines the self-perception of many public employees. This can, for example, be observed in the health sector, where patients are frequently seen as passive clients who lack the expertise to contribute to their own diagnosis. The customer role is prevalent in the NPM discourse and reflected in the increasing institutionalisation of user boards and the growing public choice between services. The co-producer role is present in various urban development and planning projects in which citizen mobilisation and creation of social capital are seen as important aspects of social cohesion. In the table below, we summarise some of the key characteristics of each role.

Table I: Overview of traditional citizen roles

	Client	**Customer**	**Co-producer/ co-creator**
Institutional frame	Parliamentary chain of governance Participation through elections and possibility for voice	User boards Participation through choice of services and possibility of exit	Project that activates citizens as co-responsible Participation through voice
Identity	Voter/passive objects of governance Politicians represent citizens Interest-based approach to public service	Customers who expresses preferences by 'voting with their feet' Individualistic and rights-oriented approach to public service	Active co-producer of public governance Community-oriented approach to public services and policies
Resources	Ability to elect politicians who represent individual interests	Ability to make informed choices	Time-situated and contextual knowledge, which is important to include in the development of public service
Contribution to public sector development	Does not contribute to development Administrative professionals and politicians contribute to development	Exit spurs service development, but based on interpretation of possible causes by professionals	Contributes to both service and policy development Contribution to incremental innovations
Advantages/ Dis-advantages	High degree of professionalism Great risk of poorly anchored decisions and implementation resistance	Potential for learning among service institutions through e.g. benchmarking Loss of knowledge that can be obtained through voice	Better information base and mobilisation of citizen resources Danger of preservation rather than innovation and that only 'the usual suspects' and resourceful citizens are activated

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Citizens as co-innovators

Because of the limitations and disadvantages of the client, consumer, and co-producer/co-creator roles with respect to endorsing public innovation, we argue that scholarly reflection is needed for analysing and constructing yet another (emerging) citizen role, bearing in mind the recent focus on collaborative innovation in the public sector (Hartley, 2014; Torfing & Sørensen, 2012). This is the role of citizens as *co-innovators*. While this new role should activate citizens and citizen knowledge, much like the co-producer role does, it is important to ensure that it is not just 'the usual suspects'[3] and self-selected citizens (Fung, 2003) who are activated since they, as mentioned above, may be more inclined to preserve the status quo than to innovate. Both innovation and learning literature argue that innovation capacity is increased when more and different kinds of people are involved (Ansell & Torfing, 2014; Bland et al., 2010; Blomqvist & Levy, 2006; Franke & Shah, 2003; Hillgren et al., 2011; Prahalad & Ramaswamy, 2004; Wenger, 2007; Torfing & Sørensen, 2012). Innovation is not the product of the genius and creativity of an individual innovatory hero but instead of the disturbance to established practices and learning caused by bringing together heterogeneous stakeholders with different worldviews and knowledge. The role of citizens as co-innovators differs from the other citizens roles we have described in that:

The co-innovator role should both 1) involve the provision of knowledge about citizens and their needs in order for public professionals to employ their professional skills and knowledge for innovation <u>and</u> 2) invoke the innovative capacity of citizens themselves.

The degrees to which these two aspects are fulfilled will differ from case to case, as our examples below show. The focus of co-innovation is neither empowerment *per se* nor representative involvement or improvement of input legitimacy. This does not mean that these issues can be neglected when staging the co-innovator role, but it does mean that we may need to think about empowerment, representation, and legitimacy in different ways, depending on whether the aim is policy or service innovation and depending on when in the process citizens are involved as co-innovators.

In order to illustrate what this new role can bring to the table, we present some recent examples of the emergence of the co-innovator role at different stages of public innovation processes in Denmark. These examples differ in scope and goals. In the presentations, we consider which *institutional frames* and *resources are necessary*. The examples help us gain a more nuanced understanding of some of the issues related to activating citizens in public innovation.

Examples of citizens as co-innovators

On the basis of the following three case vignettes from innovation processes in a Danish public sector context, we argue that it makes a difference *when* citizens

are active in an innovation process. Are citizens setting the agenda and initiating the innovations process? Are they co-designing services, policies, or products in a public-initiated process, thereby contributing to input and throughput stages? Or are they invited in as users of a particular service in order to assist in the implementation of new services at the output stage? The case vignettes provide examples of different degrees of empowerment and different approaches to representation and hence legitimacy. They thus provide a good starting point for a further discussion of these issues.

Citizens initiating public innovation

New and innovative initiatives with a public scope may start with voluntary groups, NGOs, interest groups, or other actors from civil society identifying a need and having a good idea (Sørensen & Torfing, 2015). One example is the *Ageless Biking*[4] service innovation project, which pairs seniors with cyclists. Senior citizens are transported in rented rickshaw bikes, giving them a chance to get out and see the city while interacting with local volunteers. The project was initiated by a young student with a passion for biking. Each day, he passed by a public home for the elderly and noted that the residents seldom went outside due to lack of resources. One day, he rented a rickshaw, showed up at the care home, and asked if anybody wanted a ride. The idea turned into a project that was received very positively by the professionals and local leader at the home. The project rapidly gained momentum and is today active in several municipalities. In terms of *institutional frame*, the initiative required an entry point into the public organisation from which relevant public actors could be involved and support the citizens. Public authorities are, however, often unprepared for these kinds of initiatives, and slow and bureaucratic approval processes can easily demotivate citizens and create barriers for the enabling of citizens in this role. In this case, it was decisive that the *necessary resources* were rapidly provided by both volunteers and the home for the elderly, which quickly decided to purchase five rickshaws. This allowed the project to reach a wider group of people, aided by electronic platforms such as Facebook. Moreover, it paved the way for citizens to exert active citizenship and enabled them to do something for their fellow citizens.

Citizens co-designing public innovation

In many places in the public sector, it is increasingly on the agenda to invite selected stakeholders to interact in designing or creating new processes or policies (Bason, 2010; Björgvinsson et al., 2012). A growing number of studies recognise that public innovation occurs in a political context and therefore involves policy innovation (Ansell & Torfing, 2014). This differs from co-production in that it focuses on the input stage of the policy process, thereby contributing to setting the framework and agenda for a given policy. Co-design seeks to generate 'creative disturbances' by securing a wide range of actors with a stake in the problem or challenge at hand.

The municipal *Policy for Citizen and Stakeholder Involvement* is an example of one such policy innovation project. The idea was to do something new by creating a taskforce consisting of six citizens, six municipal councillors, and six public servants. The taskforce worked for eight months to formulate a new municipal policy for public involvement. The citizens were selected following an open call and were recruited so that they represented a diverse group in terms of age, ethnicity, employment status, and place of residence within the municipality. With regard to the *institutional frame*, the public authorities granted the taskforce a formal right to be heard in the municipal council. In terms of *resources*, a budget was provided for calling in experts who could qualify the group debates (experts on public innovation, new interactive involvement methods, etc.). This input helped the taskforce get new ideas as well as test and experiment with some of the procedures. As a result, the taskforce worked in a much more experimental and interactive manner than is usually the case in terms of exchanging knowledge and designing policies (Agger & Sørensen, 2014).

The project led to new perceptions of roles among the municipal councillors, public servants, and in particular the citizens. Most of the involved citizens expressed how the process improved their sense of citizenship, capacity for political action, and 'belonging' to the municipality. The participating municipal councillors and public servants where likewise positive about the innovative manner in which they had been working but expressed a degree of insecurity regarding their own roles in such a setting. Some councillors noted that it was difficult for them to decide 'how much weight' they should grant participating citizens' arguments given that they were unrepresentative. For the public servants, participation in the taskforce clashed with their norms of neutrality.

Citizens co-implementing public innovation

It is also becoming more common for public authorities to develop a specific service and invite citizens to test and adjust the service in order to aid implementation. An example of this kind of service innovation is a Danish police project to reduce burglaries, a type of crime that had increased dramatically in recent years (Larsen 2015). This increase led the police to initiate the *Dial Police* project, a text message response service that interested citizens could join over the internet. The project was inspired by a Dutch *Burgernet* Dutch system that engaged citizens in crime prevention. The police sent text messages to participating citizens regarding suspects, vehicles, missing persons, and unusual circumstances related to ongoing investigations, and the citizens were meant to respond with their own observations. The actual innovation was the new communication platform, which made it possible to engage citizens in a more direct and effective manner than was previously possible and to prevent crime rather than just engage with citizens as witnesses following a crime.

In terms of *institutional frame*, all that was needed was an online communication channel to potentially active citizens. While the citizens had played no part in developing the text message service, they were crucial for the service's effectiveness since it was completely reliant on their active participation. Citi-
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zens were engaged through a media campaign by the police and a professional YouTube demonstration video for *Dial Police*. The result was that 18,000 citizens joined what might be termed a co-production of public safety in the region in which the project was implemented. The demanded *resources* were limited: Citizens should just be able to observe and respond to a text message. The participating citizens were self-selected, and there were no criteria or goals in terms of representation, empowerment, or other issues (Larsen 2015). Nonetheless, the act of specifically inviting citizens to actively take part in crime prevention made them co-producers of public value, improving public safety for themselves and their communities and thereby supporting communitarian ideals of citizenship.

Lessons from the three cases

In terms of *institutional frame*, the three examples are quite different. The two service innovation projects (*Ageless Biking* and *Dial Police*) required no restructuring within the public organisations themselves. They nevertheless required willingness on the part of public administrators to see citizens as resourceful and thereby allow them a role in the innovation process. Public administrators also needed to be able to communicate with the citizens, a requirement that may prove challenging in some public organisations with strong professional cultures and little inclination for citizen participation (Hartley, 2014; Voorberg et al., 2014). The *Ageless Biking* case furthermore required administrative freedom to act quickly and supportively with regard to the citizen initiative. In the police case, the authorities remained in control of the project, and its demands in terms of institutional frame were limited to the way in which the police communicated with citizens. As a result, even if the public organisation need not restructure, significant cultural barriers may exist to enabling citizens as co-innovators embedded in professional cultures.

The policy innovation case was somewhat more demanding for the public authorities inviting and supporting a diverse group of citizens to develop a new policy. It was demanding because collaborating with a non-representative group of citizens and giving them direct influence over policymaking challenged politicians' and administrators' roles and identities, usual modus operandi, and understandings of a legitimate policy process. This is a significant barrier requiring further reflection in both theory and practice.

In terms of *resources* demanded of the citizens, the examples show a broad spectrum from very high to limited. When citizens are initiating the process, they are the locus of creativity, the drivers of the process, and contributors to public service delivery. When citizens are invited to co-innovate in a public-led innovation process, they need time and communicative abilities but are supported and empowered to a much greater degree by the process and the facilitators. Finally, when the citizens are invoked as co-implementers of a service, the demands are more *ad hoc*, and they can respond to public needs in their own time. The more resources required of citizens, the more they need to be motivated by either extrinsic rewards (material or non-material), intrinsic motivation (social, normative), or both (Verschuere et al. 2012).

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What do these differences mean in terms of how we should conceptualise and analyse the citizens' role in public innovation? What lessons can we draw to pave the way for a more reflective staging of citizen involvement when the aim is public innovation? How do these examples link to existing studies into the roles of citizens in public innovation? We shall address these questions in the following section.

Citizens as co-innovators – Lessons from the literature

In the literature, there are few studies explicitly addressing citizens' roles in collaborative public innovation (Bason, 2010; Brand, 2005; Kristensen & Voxted, 2009; Voorberg et al., 2014). Furthermore, only limited attention has been paid to promoting public innovation by creating and enhancing arenas in which citizens, professionals, and politicians can co-innovate (Ansell & Torfing, 2014; Osborne & Brown, 2013). Scholarly literature from various fields does, however, offer inspiration for developing the co-innovation role. We now turn our attention to some of the different approaches to a more interactive citizen role that have been described in the user innovation, co-creation, and design literature. We will analyse how these approaches can be used to nuance and create greater conceptual depth and precision when addressing the role of citizens in public innovation.

As we have seen from our three examples, it matters *when* citizens are involved in an innovation process. Both Voorberg et al. (2014) and Torfing et al. (2014) divide the co-innovator role[5] into three dimensions: *co-initiators*, *co-designers*, and *co-implementers*. These three dimensions contribute to a more nuanced understanding of citizens in collaborative innovation and mesh well with our three examples. According to the review by Voorberg et al. (2014), the most common dimension in empirical scholarly literature is *co-implementation*, such as in the *Dial Police* case. Assuming that this is also the most common form in practice, it may be because this dimension requires the least from both citizens and public administrations, as evident from the examples. It is thus likely to encounter less resistance within the given institutional frames than the more demanding forms. If we perceive the co-innovator as a scalar concept including the dimensions of co-initiators, co-designers, and co-implementers, the latter is when citizens' creative capacities are least invoked and closest to the co-producer in the service management literature (Osborne & Strokosch, 2013). As a result, the innovation capacity is also limited to service innovation. The service management literature on co-production can contribute to conceptualising and analysing the co-implementer dimension in terms of how co-production occurs, what organisational features are required, what barriers and drivers exist for co-production, and under which circumstances co-production becomes innovative.

For understanding the co-design dimension, one can – unsurprisingly – gain inspiration from the literature on *co-design*, *participatory design*, and *co-creation.* In the co-design literature, design processes and small scale experimentation are used to test ideas and achieve 'failing faster' and learning through the

development of 'proto-types' (Monguet et al., 2011). Citizens contribute actively with their knowledge and ideas to test the viability of prototyped services or collaborations. The 'participatory design' strand of studies tends to focus more on the empowerment of socially marginalised groups than on innovation *per se* (e.g. Hilgren et al. 2011, Björgvinsson et al. 2012), but the design processes are seen as contributing to the provision of 'agonistic spaces' in which relationship building can take place and in which conflicts and trade-offs are discussed openly, revealing dilemmas and making them tangible and thus issues that can be addressed. This may be useful for both policy and service innovation, and the methods and approaches may be helpful when reflecting upon the best means of staging the co-innovator to stimulate learning in practice.

The *co-creation* literature, drawing upon anthropological methods, also offers inspiration for how citizen knowledge can be activated for public innovation and provides several examples, particularly from health services and e-governance, including 'patient journeys' to improve patients' experiences of health services (Richardson et al, 2007), co-created design of libraries (Costantino et al, 2014), and tax services (Langergaard & Carstensen, 2014). Some of the studies of co-creation in a public sector context tend to be more concerned with generating knowledge about citizens and their experiences with public services in order to improve 'problem identification' and professional response. They are thus less oriented toward creating processes in which citizens themselves invent or articulate new services or products of public value and new ideas as to which institutional structures could support such activities (Bason, 2010). Furthermore, unlike the participatory design literature, which is imbued with communitarian norms, citizens tend to participate as individuals, and it is their unique interaction experiences with a specific public service – e.g. a patient's interaction with a doctor about jointly developing a treatment (Prahalad & Ramaswamy, 2004) – that constitutes the knowledge used by public administrators.

In terms of developing the co-design dimension of the co-innovator role, there is thus much to draw from: the learning-oriented approaches from participatory design experiments may be very helpful in terms of invoking the creative potential of citizens themselves in collaboration with the public administrators, while the lessons from the co-creation literature may be helpful in disclosing information about citizens' experiences and needs relative to both service and policy innovation.

When it comes to the *co-initiation* dimension, inspiration can be found in the literature on social innovation and entrepreneurship and private sector user-driven innovation since these processes start as private initiatives. The literature on social innovation and entrepreneurship highlights the motivations of social entrepreneurs who innovate and drive change processes to the benefit of marginalised groups (Peredo & McLean, 2006; Mort et al, 2003), as exemplified by the *Ageless Biking* case. The literature builds upon Schumpeter's work on entrepreneurship (Schumpeter, 2003; Hagedorn, 1996), adding a social dimension, which is relevant for public value creation and thus collaborative public innovation.

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The literature also points to examples in which social entrepreneurship has led to structural transformation and hence radical innovation. The contribution from this field to the co-initiation dimension lies in understanding and analysing drivers and leadership requirements that may help enable social entrepreneurs in their efforts to co-initiate public innovation processes.

Another approach to identifying enabling factors of co-initiation is the literature on user-driven innovation. Several studies have shown that users – and *lead users* in particular – are able to make not only incremental innovations and tailor products to their own needs but also radical innovations, creating new needs and services in collaboration with other communities of practice (Bogers et al., 2010; Brand, 2005). These innovations happen as a form of co-evolution between technical artefacts and the social practices surrounding them (von Hippel, 1986; Franke & Shah, 2003). More importantly, these innovative resources of lead users or social entrepreneurs can be harvested by public organisations, e.g. by using internet-based media to crowdsource ideas from interested citizens or by identifying and engaging lead users specifically. The potentials for crowdsourcing or open innovation (Chesbrough, 2006; Seltzer & Mahmoudi, 2012) is being explored as a new field of study in public administration as planning, for instance under the term 'citizensourcing', in which it is argued that public problems can be formulated as innovation problems and can be subjected to public idea competitions on internet-based platforms (Hilgers & Ihl, 2010). Several examples of crowdsourcing for idea generation and selection are explored by Seltzer and Mahmoudi (2012), pointing to the potential creative capacity of a diverse crowd but also to the pitfalls of only engaging selected elites. Crowdsourcing furthermore requires that one can appropriately define the problem, which is not necessarily the case for wicked problems. The literature thus contributes to the co-innovation dimension by highlighting new opportunities for engaging creative and resourceful citizens due to developments in communication technologies as well as engaging diverse communities of practice with large innovative potential through networking.

Table 2: The co-innovator role and its three dimensions

	CO-INNOVATOR		
	Co-implementer	**Co-designer**	**Co-initiator**
Institutional frame	Service provision institutions with an openness to develop the service with users	Collaborative arenas gathering selected stakeholders in collaborative innovation processes, e.g. living labs, thinktanks, networks, etc.	Sufficient organisational freedom to support, further develop, implement, and disseminate private initiatives
Identity	Individual user of a service but with the possibility to relate to communitarian goals	Primarily communitarian	Primarily communitarian, but possibly driven by self-interest (improved service)
Contribution to innovation	Contributes to service innovation, contextual knowledge, and experience	Contributes to policy and service innovation with ideas, contextual knowledge, and experience	Contributes primarily to service innovation (though policy innovation is also conceivable), with ideas, initiatives, links to communities of practice, contextual knowledge, and experience
Citizen selection	Users of the service in question	Publicly selected stakeholders, citizen experts, and users	Self-selected entrepreneurs
Resources	Experience with the service, ability to co-produce, i.e. communicate experiences and ideas for improving the service	Time, knowledge, a stake in the issue, deliberative capacity, collaborative capability (representativeness)	Creativity, initiative, knowledge, time, entrepreneurship, collaborative capability
Conceptual inspiration for further refinement	Co-production: service management and public management literature	Co-design, participatory design, and co-creation literature	Social entrepreneurship, user-driven innovation, and social innovation literature

These strands of literature all offer valuable perspectives that can contribute to a more nuanced conceptualisation of citizens' roles in collaborative public innovation and ultimately improve the processes through which public authorities interact with citizens in collaborative public innovation practices.

It might be argued that there is no need to conceptualise yet another role for citizens in NPG, given the many terms that are already in play. However, in light of the growing focus on collaborative public *innovation*, we argue that, if public organisations are to act as civic enablers (Sirianni, 2009) of innovation processes, it is important that the specific contributions of citizens to such processes are properly understood and conceptualized. While existing conceptualisations – of citizens as co-producers, co-creators, co-designers, etc. – offer many valuable insights, they rarely focus on innovation but instead on empowerment, improved efficiency, or effectiveness of service delivery, which may or may not involve innovation.

Conclusion

This article's contribution has been twofold: first to understand the potentials and limitations for public innovation in existing citizens roles (client, customer, and co-producer/co-creator) and secondly to pave the way for a more nuanced understanding and conceptualisation of citizens' role as co-innovators in order to create arenas conducive to citizen involvement in collaborative public innovation. In doing so, we have explored three dimensions underlying the co-innovator role: citizens as co-initiators, co-designers, and co-implementers. While we have not invented this fruitful division into the three dimensions, we have highlighted literature that can add considerably to the understanding and analysis of these dimensions in future research.

The citizen roles contribute to public innovation in different ways and each have their advantages and disadvantages. In this article, we have shown that recent years have seen an increasing focus on how citizens and users can play a more active role in creating private and public innovation. Furthermore, we have described how at least three distinct perceptions of citizen roles exist as layers in public governance today as well as how a new role is emerging, born out of the need for public innovation. Citizen and user involvement in public innovation processes has great potential. Despite signs of an increased focus on user-driven public sector innovation, this potential could be far better realised than it is today.

We conclude that the outcomes of increased citizen involvement depend on how citizens are involved and what roles they are allocated. We thus suggest that the practice field should reflect upon its conceptualisation of citizens and their role prior to engaging citizens. While all citizen roles have their advantages and disadvantages, it seems clear that they are not all equally appropriate for all public tasks. It is one thing to be able to embrace and support initiatives from entrepreneurial citizens who act as initiators of change and innovation, and it is

something else to foster a public culture in which such creative and resourceful citizens are actively sought out and encouraged and in which the knowledge of the crowds is systematically harvested to address salient public problems. This cannot be done without a thorough understanding of the drivers, pitfalls, and necessary organisational and communicative platforms for innovation.

In this article, we have given empirical examples of some of the most common barriers for promoting a more active role for citizens as co-innovators. For example, we have seen inherent barriers in existing institutional frameworks, such as strong professional cultures with little desire for direct citizen involvement in innovation processes. Moreover, we have seen that prevailing norms of what constitutes legitimate processes among politicians and administrators can clash with the inclusion of 'random' citizens. Finally, we have seen how bureaucratic structures and lack of resources hinder support for civic initiatives. These are all issues requiring more scholarly reflection and empirical experimentation.

All these aspects of citizen engagement in collaborative public innovation need to be further conceptualised and theorised, a scholarly journey for which this article has pointed out to some fruitful paths.

References

Aberbach, J. & Christensen, T., 2005. Citizens and consumers. *Public management review*, 7(2), pp.225–246.

Agger, A. & Sørensen, E., 2014. Designing Collaborative Policy Innovation: Lessons from a Danish Municipality. In *Public Innovation Through Collaboration and Design*. New York: Routledge, pp. 188–208.

Agger, A. & Tortzen, A., 2015. *Forskningsreview om samskabelse.* Institut for Samfund og Globalicering. Roskilde School of Governance

Alford, J., 2009. Engaging public sector clients. *From Service Delivery to Co-production.* Houndmills, Hamps and New York, NY: Palgrave Macmillan.

Ansell, C. & Torfing, J., 2014. *Public Innovation through Collaboration and Design*, Oxon and New York: Routledge.

Bason, C., 2010. *Leading public sector innovation: Co-creating for a better society*, Bristol/Portland: The Policy Press.

Bason, C., 2010. Leading public sector innovation. Co-creating for a better society. , p.

Bekkers, V., Edelenbos, J. & Steijn, B., 2013. *Innovation in the Public Sector: Linking Capacity and Leadership.* In: V. Bekkers, J. Edelenbos, & B. Steijn, eds., Basingstoke: Palgrave Macmillan.

Björgvinsson, E., Ehn, P. & Hillgren, P.-A., 2012. Agonistic participatory design: working with marginalised social movements. *CoDesign*, 8(2–3), pp.127–144.

Bland, T. et al., 2010. Enhancing public sector innovation: Examining the Network-Innovation Relationship. *The innovation journal: The public sector innovation journal*, 15(3), pp.1–25.

Blomqvist, K. & Levy, J., 2006. Collaboration capability–a focal concept in knowledge creation and collaborative innovation in networks. *International Journal of Management Concepts …*, 2(1), pp.31–48.

Bogers, M., Afuah, A. & Bastian, B., Users as Innovators: A Review, Critique, and Future Research Directions. *Journal of Management*, 36(4), pp.857–875.

Bommert, B., 2010. Collaborative innovation in the public sector. *International public management review*, 11(1), pp.15–33.

Boyle, D., Slay, J. & Stephens, L., 2010. *Public services inside out - Putting co-production into practice*, Available at: http://www.nesta.org.uk/sites/default/files/public_services_inside_out.pdf. London: Nesta.

Bradwell, P. & Marr, S., 2008. Making the most of collaboration: an survey of public service co-design. London, Demos/ Price Waterhouse Coopers.

Brand, R., 2005. The citizen-innovator. *The Innovation Journal*, 10(1), pp.9–19.

Bryer, T.A., 2009. Explaining responsiveness in collaboration: Administrator and citizen role perceptions. *Public Administration Review*, 69(2), pp.271–283.

Carpini, M.X.D., Cook, F. & Jacobs, L.R., 2004. Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Litterature. *Annual Review of Political Science*, (7), pp.315–344.

Chesbrough, H.W., 2006. *Open Innovation: The New Imperative for Creating and Profiting from Technology*, Boston: Harvard Business School Press.

Clarke, J., 2006. Consumers, clients or citizens? Politics, policy and practice in the reform of social care. *European Societies*, 8(3), pp.423–442.

Clarke, J. & Newman, J., 2007. What's in a name? New Labour's citizen-consumers and the remaking of public services. *Cultural Studies*, 21(4–5), pp.738–757.

Costantino, T., LeMay, S. & Vizard, L., 2014. Exploring participation in the design of public library e-services. *Proceedings of the 13th …*.

Franke, N. & Shah, S., 2003. How communities support innovative activities: an exploration of assistance and sharing among end-users. *Research Policy*, 32(1), pp.157–178.

Fung, A., 2003. Thinking about Empowered Participatory Governance Archon Fung and Erik Olin Wright. *Deepening democracy: Institutional innovations in empowered participatory governance*, 4, p.3-44. London & New York: Verso.

Hagedorn, J., 1996. Innovation and entrepreneurship: Schumpeter revisited. *Industrial and Corporate Change*, 5(3), pp.883–896.

Harris, N. & Thomas, H., 2011. Clients, customers and consumers. A framework for exploring the user-experience of the planning service. *Planning Theory & Practice*, 12(2), pp.249–268.

Hartley, J., 2005. Innovation in governance and public services: Past and present. *Public Money & Management*, 25(1), pp.27–34.

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Hartley, J., 2014. New development: Eight and a half propositions to stimulate frugal innovation. *Public Money & Management*, 34(3), pp.227–232.

Hartley, J., Sørensen, E. & Torfing, J., 2013. Collaborative innovation: A viable alternative to market competition and organizational entrepreneurship. *Public Administration Review*, 73, pp.821–830.

Hilgers, D. & Ihl, C., 2010. Citizensourcing: applying the concept of open innovation to the public sector. *The International Journal of Public participation*, 4(1), pp.68–88.

Hillgren, P.-A., Seravalli, A. & Emilson, A., 2011. Prototyping and infrastructuring in design for social innovation. *CoDesign*, 7(3–4), pp.169–183.

von Hippel, E., 1986. Lead Users: A Source of Novel Product Concepts. *Management Science*, 32(7), pp.791–805.

Hirschmann, A.O., 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, Massachusetts, London: Harvard University Press.

Kristensen, C.J. & Voxted, S., 2009. *Innovation: Medarbejder og bruger*, København K: Hans Reitzel Forlag.

Langergaard, L. & Carstensen, H., 2014. Democracy Innovation and Public Authorities: Learning from the Danish Ministry of Taxation. *The Innovation Journal-Public ...*, 19(1), p.Article 4.

Langergaard, L.L., 2015. Perspectives on user-driven innovation in public sector services. In Agger, A.; Damgaard, B.; Hagedorn Krogh, A.; Sørensen,E (ed). *Collaborative Governance and Public Innovation in Northern Europe*. Bentham Science Publishers.

Larsen, T.S., 2015. The Ambivalent Relations Between Bureaucracy and PublicInnovation: The Case of the Successful Failure of Dial Police. *International Journal of Public Administration*, 38, pp.92–103.

Lévesque, B., 2013. Social innovation in governance and public management systems: toward a new paradigm? F. Moulaert et al., eds. , (2), pp.25–39.

Lucio, J., 2009. Customers, Citizens, and Residents. *Administration & Society*, 41(7), pp.878–899.

McLaughlin, H., 2009. What's in a name:"client","patient","customer","consumer","expert by experience","service user"—what's next? *British Journal of Social Work*, 39(6), pp.1101–1117.

Monguet, J.M. et al., 2011. eHealth living lab micro innovation strategy: A case study of prototypes through co-creation. In *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*. pp. 144–150.

Mulgan, G. & Albury, D., 2003. *Innovation in the Public Sector*. Cabinet Office Strategy Unit, United Kingdom Cabinet Office.

Omsorgsdepartementet, H., 2014. *HelseOmsorg21 Et kunskapssystem for bedre folkehelse - Nasjonal forsknings-og innovationsstrategi for helse og omsorg*,

Osborne, S. & Brown, L., 2013. *Handbook of Innovation in Public Services.* In: S. Osborne & L. Brown, eds., Cheltenham & Northampton: Edward Elgar Publishing.

Osborne, S.P., 2010. *The New Public Governance? Emerging perspectives on the theory and practice of public governance*, London & New York: Routledge.

Osborne, S.P. & Strokosch, K., 2013. It takes two to tango? understanding the Co-production of public services by integrating the services management and public administration perspectives. *British Journal of Management*, 24(S1), pp.S31–S47.

Peredo, A.M. & McLean, M., 2006. Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), pp.56–65.

Pestoff, V., Brandsen, T. & Verschuere, B., 2012. *New Public Governance, the Third Sector, and Co-Production*, New York: Routledge.

Poulsen, B., 2009. Competing traditions of governance and dilemmas of administrative accountability: the case of Denmark. *Public Administration*.

Prahalad, C.K. & Ramaswamy, V., 2002. The Co-Creation Connection. *Strategy + Business*, (27).

Prahalad, C.K. & Ramaswamy, V., 2004. Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), pp.5–14.

Regeringskansliet, 2012. *The Swedish innovation strategy*,

Richardson, S., Casey, M. & Hider, P., 2007. Following the patient journey: Older persons' experiences of emergency departments and discharge. *Accident and emergency nursing*, 15(3), pp.134–40.

Roberts, N.C. & King, P.J., 1996. *Transforming public policy: dynamics of policy entrepreneurship and innovation*. San Francisco, Calif: Jossey-Bass Publishers.

Schumpeter, J., 2003. Capitalism, Socialism, and Democracy R. A. Dahl, I. Shapiro, & J. A. Cheibub, eds. , (1b), pp.5–11.

Seltzer, E. & Mahmoudi, D., 2012. Citizen Participation, Open Innovation, and Crowdsourcing: Challenges and Opportunities for Planning. *Journal of Planning Literature*, 28(1), pp.3–18.

Sirianni, C., 2009. *Investing in Democracy. Engaging citizens in Collaborative Governance*, Washington DC: Brookings Inst. Pr.

Sullivan Mort, G., Weerawardena, J. & Carnegie, K., 2003. Social entrepreneurship: towards conceptualisation. *International Journal of Nonprofit and Voluntary Sector Marketing*, 8(1), pp.76–88.

Sørensen, E. & Torfing, J., 2015. Co-initiation of Collaborative Innovation in Denmark. In Paper for SIRC conference on Social Innovation, Fudan University, Shanghai, 21-22 may.

Sørensen, E. & Torfing, J., 2011. Enhancing Collaborative Innovation in the Public Sector. *Administration & Society*, 43(8), pp.842–868.

Sørensen, E., Torfing, J. & Aagaard, P., 2014. *Samarbejdsdrevet innovation i praksis*, København: Djøf/Jurist-og Økonomforbundet.

Thomas, J., 2012. *Citizen, customer, partner: engaging the public in public management*, Oxon & New York: Routledge.

Torfing, J., 2010. Local forms of governance in Denmark: the revenge of the supplement. *Journal of Power*, 3(3), pp.405–425.

Torfing, J. & Sørensen, E., 2012. Introduction. Collaborative innovation in the public sector. *The innovation journal: The public sector innovation journal*, 17(1), pp.1–14.

Verschuere, B., Brandsen, T. & Pestoff, V., 2012. Co-production: The State of the Art in Research and the Future Agenda. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 23(4), pp.1083–1101.

Voorberg, W., Bekkers, V. & Tummers, L., 2014. Co-creation in social innovation : comparative case-study on the influential factors and outcomes of co-creation. Ottowa: IRSPM.

Voorberg, W.H., Bekkers, V.J.J.M. & Tummers, L.G., 2014. A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey. *Public Management Review*, May 31, 2, pp.1–25.

Warren, M.E., 2009. Governance-driven democratization. *Critical policy studies*, 3(1), pp.3–13.

Wenger, E., 2007. *Communities of practice: Learning, meanings, and identity*, Cambridge: Cambridge University Press.

Notes

[1] We draw upon the definition of public innovation developed by Sørensen and Torfing (2011). Public innovation is understood as an "*intentional and proactive process that involves the generation and practical adoption and spread of new and creative ideas, which aim to produce a qualitative change in a specific context*" (Sørensen & Torfing, 2011, p. 849).

[2] For more information on the programmes, see: a) PUBLIN www.siresearch.eu/, b) INNOSERV www.inno-serv.eu, c) SIE, www.siresearch.eu, d) CLIPS www.ruc.dk/clips, e) MEPIN www.nordicinnovation.org

[3] 'Usual suspects' refers to those self-selected citizens who often appear at public meetings (Fung, 2003).

[4] For more information, see http://cyklingudenalder.dk/i-medierne/. The idea has since spread to other Nordic countries as well as Japan.

[5] Voorberg et al. (2014) call it co-creation or co-production.