Public services co-production: from users’ engagement to the state 2.0

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Abstract
Citizens’ engagement and citizens’ participation are rapidly becoming catch-all concepts, buzzwords continuously recurring in public policy discourses but that quite often point more to the rhetoric of participation than to its reality. By assuming the concept of co-production as the lens through which to look at citizen’s participation in civic life, the paper shows how, when supported by a real redistribution of power between government and citizens, citizens’ participation can determine a transformational impact on the same nature of government. Such effect is related to the devolution of power to citizens that allows them to take control over the public value creating processes. The paper discusses the transformational effect of citizens’ participation by considering two examples: (i) the role of citizens as (personal) information providers in smart cities initiatives and (ii) the raising of user-generated services that can deliver a public value even without involving public agencies in the service provision.

Keywords: co-production, participation, engagement, user-generated public services, smart city, public value, social media

1. Introduction
Co-production of public services as a theoretical concept has been around for more than thirty years but it has assumed an increasing significance in the agenda of public sector reform during the past years. The recent renewed interest toward co-production appears to have been stimulated (among other things) by two phenomena. On the one hand, the global financial crisis forced governments worldwide to reduce public spending putting a squeeze on public services. This has triggered renewed interest in co-production as a way of reducing the costs of services or even rescuing services, which might otherwise be entirely cut (Bovaird, 2007; Alford, 2009; Bovaird and Loeffler, 2012). On the other hand, a strong support to the co-production model came from the widespread diffusion and use of social media related to the advent of the so-called web 2.0. In part, this is due to the possibility of using social media to create new connections between government and citizens that are essential for the co-production model to work (Meijer, 2012). Besides this, and more importantly, there is the interactive and collaborative nature of web 2.0 that, by weakening the distinction between content producers and content consumers, matches well with ideas about co-production as they have been developed in the administrative sciences.

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The literature (both scientific and grey) on the collaborative production of public services is continuously growing, as it is the range of the government-citizens relationships that have been analyzed through the lens of the co-production concept (Joshi and Moore, 2004; Bovaird, 2007; Barker, 2010; NESTA, 2012). As defined by Bovaird (2007, p. 847), co-production amounts to ‘the provision of services through regular, long-term relationships between professionalized service providers (in any sector) and service users or other members of the community, where all parties make substantial resource contributions’. Alford (2009) observes that there is a considerable disagreement over the definition of co-production within the relevant literature, especially concerning what constitutes the results or ‘products’ of co-production, and what kinds of activities should be considered as part of the process of co-production.

Co-production is much more than user/consumer involvement; it is a value-creating activity that challenges the traditional conception of the value creation process with respect to the role of the users/consumers. Prahalad and Ramaswamy (2004) observe that, in the more common variations of consumer involvement, the firm is still in charge of the overall orchestration of the experience, with consumers basically treated as passive. Managers partition some of the work usually done by the firm and pass it on to their consumers. The firm decides what products and services to produce and, by implication, it decides what counts as value and what is of value to the customers. Some scholars consider this kind of user/consumer’s as a form of co-production, although in this case users/consumers have little or no role in the value creation process. By strategically managing this kind of client co-production, the firm only aims at improving operational efficiency, developing more optimal solutions, and generating a sustainable competitive advantage (Bettencourt et al., 2002).

Different from this kind of consumer involvement, co-production gives the users an active role in the (co)creation of value; for this reason, it entails the redefinition of both the meaning of value and the process of value creation, which takes well beyond considering user/consumer’s involvement as a way to improve the organization’s operational efficiency. Looking at the involvement of the users/consumers only, or mainly, from an efficiency-based point of view obscures the transformational impact of the co-production model, which is crucial when considering citizen’s involvement in government activities as co-producers. In fact, the adoption of the co-production model in government entails transforming the organizational structures, staff attitudes and the processes of the government agencies, up to the possible transformation of the same nature of government toward the so-called ‘user generated state’ (Leadbeater and Cottam, 2007; Morrison, 2010).

The transformational potential of the co-production model is magnified by the use of social media to increase citizen’s engagement in government activities (Leadbeater and Cottam, 2007; O’Reilly, 2010; Nam, 2012; Linders, 2012; Schuurman et al., 2012; Meijer & Thaens, 2013). However, the simple adoption of new technological tools by government organizations in no way can deterministically force transformational effects on government, and this holds also with respect to the relation between the use of social media and the advent of the user-generated state (Meijer & Thaens, 2013). The embracing of the culture of self-organization and participation emerging from the web 2.0 paradigm can nevertheless stimulate the adoption of new ways of creating public goods by encouraging them to emerge from within society and by collaboratively involving users in public service co-production (Leadbeater and Cottam, 2007).

The aim of this paper, which is speculative in nature, is to show how the co-production concept can provide a useful lens through which to look at the new forms of citizens’ engagement and participation that are emerging from the diffusion of the smart city concept and the spreading of the participatory and collaborative culture typical of the web 2.0 paradigm. In the next section, I will introduce a definition of co-production based on (Bovaird, 2007) and I will argue that co-production, considered as a form of enhanced participation, requires (and imply) a redistribution of power between citizens and government. In section 3, I will discuss the role of citizens in smart cities as ‘information providers’ and I will argue that this role, which represents a fundamental
aspect of citizens’ smartness, can be explained in terms of co-production. In section 4, I will discuss the raising of user-generated public services and I will show how it depends on two elements. On the one hand, the diffusion of the collaborative culture and the technological tools typical of the WEB 2.0 paradigm that enables citizens to create services by themselves. On the other hand, the emerging of the public value as the basis for the re-definition of concept of publicness that allows to integrate the user-generated services within the public sphere.

2. Citizens’ participation and co-production

Based on an extensive survey of the relevant literature, Voorberg, Bekkers and Tummers (2014) identify three different types of co-production/co-creation: (i) citizen as co-implmenter of public services; (ii) citizen as co-designer of public services; and citizen as initiator of public services. This classification, which strictly resembles the one suggested by Osborne and Strokosch (2013), defines different roles citizens can play in the value co-creation process, corresponding to different forms of citizens’ participation in government initiatives. Participation is one of the most used terms in any public policy discourse and, more generally, in the contemporary culture. However, as Cornwall (2008) points out, the widespread adoption of the language of participation raises questions about what exactly this much-used buzzword really can mean, since ‘participation’ can be used to evoke almost anything that involves people.

One of the most influential strands in the citizens’ participation literature is the one initiated by Arnstein (1969) who considers any discourse about participation as inseparable from power redistribution between power-holders (government) and have-nots (the citizens). Considered from the point of view of the power relationships they are based on, citizens’ involvement in the decision making process through consultation, citizens’ involvement as resource providers in service implementation and citizens’ self-provision of (public) services clearly represent quite different forms of participation. Whereas consultation does not necessarily imply a power redistribution between government and citizens (Nam, 2012; Schuurman et al., 2012), citizens’ involvement as co-implementers requires considering citizens not as passive users of the services (with no or very limited power) but as partners. As co-implementers, citizens ‘become (sometimes literally) ‘partial’ employees … They do not only supply ideas to the service creation, but also behavior, time, and other resources, taking over a portion of the service delivery functions’ (Fledderus, Brandsen and Honingh, 2015, p. 5). This means that part of the responsibility for service delivery is transferred to the citizens, and this gives citizens more power than in the case of simple consultation. Finally, when citizens act as the initiators of the services, the power relationships are completely rebalanced in favor of citizens, since in this case the services are not designed and implemented FOR the users, but BY the users themselves (Bovaird, 2012), which requires government agencies to redefine their role in the service planning and delivery processes.

Bovaird (2007) describes the different forms the value creation process can take when citizens are involved as co-producers by considering how the responsibility for service planning and service delivery can be distributed between professionals (government) and citizens/communities. By considering the responsibility for an activity to be allocated (i) uniquely to the professionals, (ii) uniquely to the citizens/communities or (iii) shared between the two, nine possible configurations of the relationship between professionals and citizens/communities are possible, as summarized in Figure 1 (Bovaird, 2007; Ryan, 2012):
Out of the nine configurations considered in the figure, two cannot be considered as forms of co-production, namely: professionals as the sole service planners and deliverers, which is the traditional service provision model (configuration 1); professionals as the sole deliverer of services designed by citizens/communities (configuration 3). The path from configuration one through configuration five (full co-production) to configuration nine corresponds to a complete redefinition of the power relationships between professionals and citizens, up to the highest rung of Arnstein’s ladder, i.e. citizens control. In configuration one, professionals have complete power with no active role for citizens that are simply considered as passive users of the services delivered. In configuration nine, citizens have all the power instead, which means that the role of professionals (and hence the role of the ‘public’) in service design and delivery should be completely redefined when citizens’ participation reach the level of citizen control. As pointed out in (Bovaird, 2007, p. 850), where professional staff have no direct involvement in services, the role of professionals is to support universal self-organized service provision by individuals and communities through advice, training, reassurance, quality assurance, and, only as a last resort, intervention at key moments. Following the path from configuration one to configuration nine entails giving government the role of convener and enabler rather than the first mover of civic action (O’Really, 2010), which is one fundamental aspect of both the Digital Era Governance and the Transformational Government paradigms (Linders, 2012).

### 3. Citizens as information providers in smart cities

People play a central role in smart cities; most of the conceptualizations of smart city explicitly refer to citizens as the direct or indirect beneficiaries of the smart city activities. However, besides this view of citizens as passive recipients of the services delivered to them by the smart city, there is a different view of citizens that postulates an active role of citizens in the achievement of the smart city objectives (Lombardi et al., 2011; Giffinger et al., 2007; Nam and Pardo, 2011). Chourabi et al. (2012) summarize the way people (and communities) is typically addressed within the smart city literature by observing that smart city initiatives are designed to have impacts on the quality of life of citizens, to foster more informed and educated citizens and to allow members of the city to participate in the governance and management of the city, thus becoming active users. Nam and Pardo (2011) observe that smart city initiatives need to create a community where all citizens can engage more easily and effectively, thus developing citizens’ sense of ownership of their city, enhance the local authority’s awareness of their needs, and ultimately reshape the citizen-government relationship. Hence, in the conceptualization of smart citizens as ‘active users’ the focus is shifted from the citizens’ use of the smart city infrastructures and services to the citizens’ engagement and participation in smart city initiatives.
Citizens can participate in many ways in the development of smart cities. In the most obvious sense, citizens can participate in the governance of smart cities initiatives by taking part in the decision-making processes they are based on. However, citizens can also participate to smart cities initiatives as co-implementers that make substantial resource contributions to them, as it is usually required by true co-production relationships (Bovaird, 2007). Citizens, as co-implementers, contribute to service production and delivery through time, expertise and effort (Linders, 2012), but also through compliance and information (Alford, 2009). Information is the most relevant resource citizens can contribute to value co-production in the context of smart cities. The instrumentation of smart cities (Harrison and Donnelly, 2011) ‘enables the capture and integration of live real-world data through the use of sensors, kiosks, meters, personal devices, appliances, cameras, smart phones, implanted medical devices, the web, and other similar data-acquisition systems, including social networks as networks of human sensors.’ (Chourabi et al., 2012, p. 2290) The citizens’ massive use of ‘consumer-centric’ mobile sensing and computing devices (such as smart phones and in-vehicle sensors) allows individuals to collectively share data and extract information to measure and map phenomena of common interest. This gives rise to the so-called Participatory Sensing and/or Mobile Crowdsensing trend that is primarily concerned with data collection, processing, and interpretation and emphasizes the involvement of users and community groups in social networks, documenting different aspects of their lives (Mitton et al., 2012). Citizens thus become sensors themselves (Goodchild, 2007), providing to the smart city different types of information that can be used to implement user-centered services. Figure 2 below reports some well-known examples of citizens as sensors.

Fig. 2 – Examples of citizens as sensors

Most often, citizens as sensors provide information to the smart cities unconsciously. When walking along a street or moving inside a parking, citizens are seldom completely aware of the fact that their image is taken by security cameras and stored for security reasons, although the presence of cameras is properly signaled. Similarly, people are very unlikely to be aware of the information that
smart meters acquire and of how this information can be used, and by whom (Molina-Markham, 2010; EDPS, 2012). Mobile applications running on smartphones may access many different information stored on the devices; when they agree on the terms stated in the End User License Agreements (EULA) people are very seldom aware of the fact that this could represent a serious threat for their privacy. In the examples reported in figure 2 above, citizens are conscious information providers only in the FixMyStreet and the Waze cases. When posting a message on Twitter or uploading a picture on Flickr people does not know that this information can be used by a third party to extract further information that can be used in ways people as the source of information is completely unaware of. This, of course, raises serious problems concerning privacy and the protection of personal information and, ultimately, the ownership of the user-generated data.

Personal data ownership, i.e. ‘who owns the data’ and ‘what rights does ownership imply’, is still an open question, mainly due to the difficulty of extending to data the traditional property rights (Schwartz, 2004; WEF 2011a). For instance, it is still widely discussed whether an individual has the right of ‘selling’ his personal data or whether privacy is an inalienable right. However, even without entering the complexities of the discussion on personal data ownership, it is quite reasonable to claim that citizens should be given some form of control over the data they generate with their behaviors both in the real world and online. A possible solution to give citizens control over their data is to redefine the personal data ecosystem form the traditional organization-centric model to a user-centric model. In a user-centric personal data ecosystem (Moiso & Minerva, 2012; Cavoukian, 2013), individuals can exert a higher control over the whole lifecycle of their personal data, which would allow citizens to decide whether to disclose their data to trusted organizations in order to receive some useful services from them. An example of this approach in the private sector is the UK Government initiative ‘midata’ that encourages companies to release the data they hold on customers back to the customers, thereby empowering them as managers of their own data (BIS, 2014). Another example, involving government, is the Blue Button initiative in the USA that allows veterans to download a copy of their health data (WEF, 2011b). Both the initiatives are intended to give back to the users the control over the data concerning them, based on the principle according to which they have the right to control their data, if not to own them.

In the context of smart cities, giving the citizens control over their personal data is the condition that would make it possible for them to evaluate the trade-off between privacy concerns and expected benefits and to balance the risk of privacy breaches with better services and improved livability of the city they live in. This would make citizens, as conscious and informed data providers, voluntary co-producers and partners in the development of smart cities.

4. The raising of user-generated services

User-generated data are collected and used by both government agencies (and private organizations acting as partners of government agencies) and private organizations. As observed above, this happens even with people, as the data owner, having little or no knowledge of it. However, a survey conducted in November 2014 among over 2,000 U.S. adults ages 18+ (Transera, 2014) shows that the majority of consumers (67% of the sample) would be willing to give companies access to much of their personal information if they would get better, more personalized services/products in return. Thus, even when their privacy concerns are high (for instance when interacting with companies as consumers) citizens are nevertheless willing to share (at least some of) their personal data if this brings them some benefits. When such benefits directly concern them (for instance discounts or better consumer experience in a co-production relation with sellers), citizens have the opportunity of evaluating the trade-off between privacy and utility and, on this basis, to increase or decrease the level of trust and the willingness to allow an organization to use their data. This clearly shows that if consumers are given the possibility of taking control over their data and evaluating the trade-off between the risk of privacy breaches and expected or perceived utility they could act as conscious
and collaborative information providers, thus improving the quality of the co-production relationship. Can we expect that the same could happen when citizens, participating in them as co-producers, are given the possibility of taking control over the value creating processes usually performed by public agents?

Alford (2009) argues that the presence of incentives for co-producing (or alternatively sanctions for not doing so) is not enough to explain all the reasons that make people willing to cooperate. Along similar lines, Bovaird and Loeffler (2012) observe that, besides pursuing purely selfish motivations, citizens may also be encouraged to play an active role as co-producers in order to increase other elements of value-added. For instance, ‘environmentally conscious users may be active in the planning, design and delivery of a service to ensure that its carbon footprint is minimized, while community-conscious users may wish to push the design and management of the service towards goals which emphasize social inclusion and the spreading of benefits across the widest possible range of local community members’ (Bovaird and Loeffler, 2012, p. 1127).

The collection and processing of the citizens’ personal data in a smart city context is aimed at improving the city’s performances and making it more sustainable and livable, which includes delivering better services to the citizens and providing them with the best experience possible. From this point of view, what a citizen may receive from allowing the smart city to collect and use his data is not just a value for him, but also a value for the wider population and also for future generations of citizens, that is a public value (Hartley, 2011).

According to Benington (2011), public value should be defined in terms of ‘what adds values to the public sphere’, which allows ‘focusing attention not just on individual interests but also on the wider public interest, and not just on the needs of current users but also on the longer-term public good, including the needs of generations to come’ (p. 43). This definition of public value allows accounting for the contribution of many different stakeholders in the value creation process since the public sphere could be seen as potentially including civil society, the market and the state. Consequently, public value is not created by the public sector alone, but by the private sector, the voluntary sector and informal community organizations as well (Benington, 2011, p. 46). This view of public value challenges the traditional distinction between ‘service producers’ and ‘service consumers’. The extension of what counts as ‘public’ advocated by Benington allows a better understanding of the many ways in which citizens can contribute to the public value creation processes in the context of smart cities, and in the digital age more generally.

Re-balancing the power relationship between government and citizens is the fundamental condition that enables the achievement of higher levels of citizens’ participation in government activities. In section 3 above, I exemplified what this could mean by showing how giving back to citizens the control over the data they generate with their behaviors in both the real and the digital world is the condition that could allow them to participate, as conscious information providers, in public value generating processes in the context of smart cities. More generally, citizens can fully exert an active role in the public value creation processes when they are given that degree of power (or control) which allows them to govern a program (or an institution), being in full charge of policy and managerial aspects (Arnstein, 1969, p. 222). The redistribution of power in favor of citizens ‘enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future’ (Arnstein, 1969, p. 216).

The increased connectivity of citizens and businesses, typical of the smart city scenario, the possibility for people to work together, the availability of previously closed information and data make it possible for citizens, companies and others to perform - completely or in part - government tasks (EU, 2013). The engagement of non-governmental subjects (people, communities and organizations) in public value creation activities is fostered by the widespread diffusion of both the social media, as the technological enabling tools, and the collaborative culture of the web 2.0 paradigm than overcomes the distinction between producers and clients (in the extended sense of Alford, 2009). These are the conditions that enable the co-production scenario nine of figure 1 above to emerge.
Bovaird (2007) describes that scenario as ‘self-organized community provision’ and considers it as a particular form of co-production. Linders (2012) describes the same scenario as ‘Do it Yourself Government’ and shows how it affects all the phases of the service life cycle, i.e. service design, service execution and service monitoring.

In general terms, the Do It Yourself Government scenario is based on user-generated services that differ from the services generated though web-2.0 based co-production processes (for instance, those described in Bovaird et al., 2009) because they do not require any intervention by public administration professionals. However, although they are designed without any input from public administration professionals and have users/communities as the sole service deliverers, the user-generated services can nevertheless deliver a public value to citizens. As such, they should be included within the public sphere (Benington, 2009) and, hence, be considered as user-generated public services, or public services 2.0 if the focus is on the enabling technologies (Leadbeater and Cottam, 2007; Punie et al., 2010).

Some well-known examples of user-generated services, already widely used by people, are Fix My Street (FixMyStreet.com); Patients Like Me (PatientsLike-Me.com); Connexions (cnx.org); Wiki Crimes (WikiCrimes.org); Farmsubsidy (Farmsubsidy.org); Seniorweb (seniorweb.nl); Social street (socialstreet.it/) and Neighborhood watch (http://www.nnwi.org/). All these services have been developed by non-public sector organizations; nevertheless they deliver a public value in terms of better city management and maintenance; increased public health, safety and security; support to life-long learning; enabling the creation and the strengthening of local communities; reducing the risk of exclusion. The usefulness of user-generated services for citizens and their capability of delivering public value are such that in some cases they have been included within the portfolio of services delivered by public agencies (this is, for instance, the case of Fix My Street that is used by many municipalities around the world).

The raising of user-generated services and their integration within the public sphere entails a devolution of power from government to citizens, which can be considered as a way to fully exploit citizens’ active role as participants in the civic life. User-generated public services amount to a new way to create public goods that take the lead from the culture of self-organization and participation emerging from the Web (Leadbeater and Cottam, 2007). They challenge the traditional concept of publicness (Alford, 2015) taking away from seeing only the formal state and its institutions as central, developing instead understandings of the multiple sites of power and involving actors outside the formal constitution (Morrison, 2010).

Giving back power to citizens, not only in the decision-making processes but also in the implementation and delivery of services, is the condition that enables citizens to act as public services co-producers. On the one hand, this calls for a recasting of the roles of public sector staff, from producing services to support and influence citizens to co-produce (Alford, 2009). On the other hand, this suggests a broader conception of government, including the role of government as organizer, enabler, and catalyst of the efforts of individuals and groups (Alford, 2009; O’Really, 2010). Hence, fully embracing the idea of citizens’ participation and providing them with the required power not only would increase the government efficiency and effectiveness by exploiting the citizens’ contribution to the creation of public value, but would also contribute to the transformation of government and governance, making sense of the idea of user generated state or state 2.0 (Leadbeater and Cottam, 2007; Morrison, 2010).

5. Conclusions

In this paper, I discussed the role of citizens as co-producers of public services as an enhanced form of citizens’ participation in civic life. By reference to the well-known Arnstein’s approach to citizens’ participation, which considers ‘true participation’ as depending of power redistribution between government and citizens, I argued that notwithstanding its overtly claimed centrality, some
quite common ways of conceiving citizens’ participation point more to the rhetoric of participation than to its reality. This holds for both citizen’s participation in decision-making processes and participation in the implementation of public value generating processes. With specific reference to the latter point, in the paper I showed how the concept of co-production provides a useful lens through which to look at citizens’ participation. In the paper, the relevance of the concept of co-production has been exemplified first with respect to the analysis of what the often-cited idea of citizens’ smartness can mean in the context of smart cities. More specifically, I showed how, acting as co-producers, citizens can actively participate in the development of smart cities, contributing to this goal primarily as conscious (personal) information providers. Besides playing the role of information providers in smart cities initiatives, in the era of web 2.0 and social media citizens can contribute to the generation of public value also through the design and implementation of user-generated services that do not involve public agencies but can nevertheless deliver a public value. On the one hand, this represents an unprecedented opportunity for governments to exploit citizens’ participation to become more productive and effective in creating public goods. On the other hand, this poses to the public sector a serious challenge, forcing it to undergo a deep transformation to fully embrace the reality of participation and not only the rhetoric of participation. Without this transformation, the public sector will risk to be more and more dysfunctional with respect to the culture of interactivity, participation and cooperation that is progressively shaping the society in the digital era.

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