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INNOVATION IN PUBLIC SERVICES IN THE LIGHT OF PUBLIC ADMINISTRATION PARADIGMS AND SERVICE INNOVATION PERSPECTIVES¹

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"Service Studies" and public management are two fields of research that have developed separately, although they share a common target (services delivery). This paper is an attempt to enhance the dialogue about service production and innovation among the paradigms of public administration (Traditional Public Administration, New Public Management and New Public Governance) and the analytical perspectives used in service studies (Assimilation to the goods logic, Demarcation and Integration).

Introduction

Public services have long remained the Cinderella of "Innovation Studies", the predominant idea being that innovation is peculiar to market sectors and that the term "public innovation" is an oxymoron (Sørensen and Torfing, 2013). However, this observation is not relevant to all public services. After all, it is not disputed, for example, that in our modern economies, public health services are among the most innovative activities or that innovation is consubstantially linked to public research services and to universities. Other exceptions include, for example, public broadcasting services and security and defence services (Nicolaj, 2017). Nevertheless, the vast majority of other public services, and in particular administrative public services, have long been considered as

¹ This paper draws on a research carried out within the EU-funded COVAL project: "Understanding value co-creation in public services for transforming European public administrations", H2020 project 2017-2020

hermetically closed to innovation. The literature has provided many explanations for this lack of real or perceived innovativeness, including the lack of competition and the monopoly nature of public services, the fact that the services are provided free of charge, the lack of resources, the Weberian argument of rigidity and inertia of bureaucracies, the difficulty of changing the statutory rights of civil servants, the risk-adverse character of politicians at the head of public administrations whose primary concern is re-election and the nature of the appropriation regimes (Halvorsen et al., 2005; Borins, 2011; Hartley et al., 2013).

The gradual integration of public services (as a field of innovation) into “Service Innovation Studies” and, consequently, more generally, into “Innovation Studies”, is based on a number of arguments that are discussed in literature (Windrum and Koch, 2008; Djellal et al., 2013; Osborne and Brown, 2013). *Some arguments concern the characteristics of the public administrations themselves.* After all, they can make use of considerable budgets and well-educated human resources, they have at their disposal users/citizens more prone to protest, but also to participate than the customers of private companies, and they enjoy a favourable climate for experience and practice transfer and for the diffusion of innovation among public organizations (Rashman and Hartley, 2002). More generally, there is a paradox when it comes to the alleged poor innovativeness of public administrations: after all, how can organizations that value innovation and whose role is to ensure the meta-governance of innovation dynamics, in other words to support the innovation of other economic activities, be insensitive to their own innovation (innovation in the services they offer, the processes and the organizations they implement)? *Other arguments concern the general socio-economic context.* The economic crisis and demographic changes are obvious drivers in the rise of interest in innovation in public services. After all, they encourage the rationalization of production processes in order to reduce the cost of services. Similarly, new social demands are appearing, for example, in the field of elder care or environmental concerns, which are sources of innovations.

The narrowing of the innovation gap in public services can be analysed by comparing, on the one hand, *the different paradigms of public administration* (traditional public administration, new public management, new public governance), which reflect changes in the nature and mode of production of public service and, on the other hand, *the main analytical perspectives* (assimilation, demarcation, integration) established by the “Service Studies” (Gallouj, 1994, 1998; Coombs and Miles, 2000) to account for different ways of understanding service and innovation in services compared to goods and innovation in manufacturing.

“Service Studies” and “Public Service Studies” which are based on these two sets of paradigms/perspectives are two important and prolific fields of research that, although they share a common essential target (namely services delivery), have developed independently, separated by a border between commercial and non-commercial activities. The distinct scientific communities have long ignored each other, and their research is presented at separate, specialized scientific conferences and scientific journals².

² Recurrent scientific conferences include the annual RESER conference or the “Frontiers in Service” conference, in the field of Service Studies, and PUBSIC (Innovation in Public Services and Public Policy) in the field of Public Service Studies. Scientific journals in the field of Service Studies include the Journal

The purpose of this article is to establish a dialogue and reconcile these two groups of paradigms/perspectives, by examining how the innovation issue fits into the different paradigms of public administration, and how these different paradigms can be linked to the different analytical perspectives generally used in “Service Innovation Studies” to understand innovation. The purpose is in particular to show how the evolutions of these paradigms and perspectives are reflected, regarding the nature of innovation, by a shift towards a broad and open concept of innovation (including non-technological innovation) and, regarding its mode of organization, by a shift from a linear model of public service innovation to an interactive or collaborative model, in which citizens occupy a central place in the process of innovation and in value co-creation.

This article is organized into three sections. After a brief review of the ADI (Assimilation, Demarcation, Integration) analytical framework, which structures the “Service Studies” and the “Service Innovation Studies” (section 1), we discuss, from the point of view of innovation, how this framework can be linked to the different paradigms of public administration (TPA, NPM, NPG: traditional public administration, new public management, new public governance) (sections 2 and 3).

1. The three analytical perspectives for addressing “Service Studies” in general and “Service Innovation Studies” in particular

“Service Studies” is a prolific field of research that was built quite naturally in comparison (contrast) with the traditional field of “Goods Studies”. Thus, as the work of Gallouj (1994, 1998, 2010) underlines, some studies consider that services should be treated like goods (assimilation or industrialist approaches), while others consider that they should be addressed in a specific way (demarcation or service-oriented approaches), while still others consider that it is necessary to develop a synthetic or integrative treatment of all economic activities (synthesis or integration approaches). Although services are an ancestral human activity, economic theory has essentially been built around the analysis of agricultural and manufacturing activities. It can therefore be assumed that, according to a classical methodological positioning, it is the relatively recent conceptual integration of services in economic analysis that explains the emergence of the ADI framework.

This key question (assimilation, differentiation or synthesis?) is central, not just to *theoretical constructs* (whatever the disciplines, methods, objects, themes), but also the *business strategies* and *public policies* in the field of services. Academic research and (strategy or policy) practices always, consciously or unconsciously, involve the following questions (or answers to these questions): is it appropriate to apply industrial theories, strategies and policies to services? Or should specific theories, strategies

of Service Research, the Service Industries Journal, the European Review Service Economics and Management, Service Science... The most significant reviews in the field of public services include the Public Administration Review, Journal of Public Administration Research and Theory, Administration and Society, Policy and Politics, Public Management Review...

and policies be developed for services? Or should integrative theories, strategies and policies be promoted?

Obviously, this paper cannot provide a complete overview of theoretical analyses and business and policy practices, in light of the ADI questioning framework. It will confine itself to applying the framework to the nature of the product and the nature of the innovation.

1.1. The ADI framework and the product definition

Debates on the nature of services fundamentally fall within the scope of the ADI framework. This framework can be applied to the founding works of economic thought³. But in this paper, we are interested in how it applies to contemporary research (see Table 1).

a) The most fundamental theoretical tool of assimilation (A-type perspective) can probably be said to be the notion of production function. This tool, forged for an industrial and agricultural economy, can easily be applied to services. Thus, to take just one example, Phelps (1992) does not see the slightest difference between automobile production and health production. In both cases, the purpose is to mobilize and combine production factors in order to generate an output. In the case of cars, the production factors include, for example, steel, plastic, labour, etc. In the case of health, the production factors are “medical care”, in other words, a set of activities aimed at restoring or improving health.

However, it is important to point out the fundamental difference between economics and management. Economics considers that services fit into the production function quite easily, while some management scientists consider that changes must be made in order to include services in the production function. Levitt (1972) and Shostak (1984), for example, recommend industrializing services by reducing the degrees of freedom and the complexity of service provision. After all, these strategic norms can be interpreted as paving the way for the elaboration of a service production function in the neoclassical mode, that is to say, in particular, respecting the hypotheses of “nomenclature”, “non-interaction” and “product anonymity”. In other words, two different concepts of assimilation can be distinguished: one that consists in ignoring the differences between goods and services (services are goods like any others), and one that acknowledges the existence of these differences and consists in deploying strategies to erase them.

b) Building on Adam Smith's (1776, p. 361) observation that services vanish at the very instant of their production, economic literature, from a D-type perspective, this time, makes every effort to isolate the intrinsic characteristics of these activities. Thus, the characteristics of intangibility, heterogeneity (or variability), inseparability (or interactivity) and perishability (or immediacy), which service marketing calls IHIP, have emerged as criteria for providing a positive (and no longer residual) definition of services; in other words, for drawing the boundary between goods and services. Thus, services are said to be intangible (that is to say, abstract entities that cannot be seen,

³ Thus, the specific differences between services and to goods (D-type perspective) are mentioned, for example, in A. Smith (1776), J.-B. Say (1803), F. Bastiat (1848).

tasted, felt, or heard before purchase), heterogeneous (the nature of the service provided varies depending on many elements: the customer, the staff in contact, the moment when it is provided), inseparable (that is to say, co-produced by the provider and the consumer who are inseparable), perishable (that is to say, immediate, not storable). Such an approach is interesting, in particular because it provides simple criteria for labelling activities. However, important difficulties appear both in the definition of these criteria and in their concrete implementation. After all, although the service is intangible, it may be based to varying degrees on tangible media. Similarly, the co-production of the result is almost non-existent in some service activities (transport or cleaning, for example).

c) Still within a D-type perspective, in order to circumvent the difficulties (in particular the many exceptions) related to the use of intrinsic criteria (without necessarily abandoning them), Hill (1977) formulated a general definition of services, based on the analytical dissociation between the customer and the medium of the service, and the distinction between the service as a process and the service as a result. Thus, for Hill (1977, p. 318), “a service may be defined as a change in the condition of a person, or a good belonging to some economic unit, which is brought about as a result of the activity of some other economic unit, with the prior agreement of the former person or economic unit”. Through the metaphor of the “ABC service triangle”, Gadrey (1996, see also Gadrey, 2000) extends and clarifies this definition by considering the service as a set of processing operations, carried out by the service provider A, on a medium C, linked in various ways (ownership, use, identity) to the customer B. The purpose of these processing operations, which do not lead to the production of a commodity likely *to circulate economically independently of the medium*, is to transform the medium C in various ways. The medium can be material objects or technical systems, codified information, the individual himself or an organization.

d) Contemporary research devoted to the definition of services increasingly falls (implicitly or explicitly) within the scope of an integrative or synthetic perspective (I-type perspective). This integration is based on several findings that reflect the idea that the border between goods and services is blurring, illustrated by the servitization of goods (Vandermerwe and Rada 1988), the industrialization of services and the rise of product-service systems (Mont, 2002). A number of theoretical constructs integrate goods and services including:

- The functional economy (Stahel, 1997), which defines all products (goods and services) by the function (the service) that they provide. Thus, the object of the economic transaction is not the good or the service, but their use value, their utility.
- The experience economy (Pine and Gilmore, 1999; Sundbo, 2015), which defines a commodity based on the experience it provides to the consumer.
- The “service science” perspective (Maglio and Spohrer, 2008) which defines service (in its generic sense) as a complex object requiring a multidisciplinary approach. Although information technologies occupy a central place in service science, it doesn't fall within the scope of an assimilation perspective that seeks to industrialize and materialize an initially intangible object. Rather it falls within the scope of an integrative approach in which human beings occupy an equally central place in “complex human-centred service systems”. The association of the term “science” with the term “service” reflects the aspiration to bring more measurement, formalization, systematization, modelling and repeatability into services and service innovation.

- The characteristics-based approach developed by Gallouj and Weinstein (1997) building on the work of Saviotti and Metcalfe (1984). This approach, further developed by a number of other authors (in particular De Vries, 2006; Windrum and Garcia-Goñi, 2008) considers that a product (whether a good or a service) can be described as the supply of a set of service characteristics (final characteristics or use values) through the mobilization by providers and customers of skills and/or technical characteristics (either tangible or intangible).

- The “Service-Dominant Logic” approach (Vargo and Lusch, 2004; Lusch and Vargo, 2006), which defines value by the “value-in-use”, thus erasing the difference between goods and services. In the SDL approach, the value is not embedded in a good or service. All organizations (regardless of their sector of activity) provide a “service offering”, which is likely to create value for the customer. Thus, the service provider does not create and deliver value to its customer, but simply offers a “value proposition”, i.e. a potential, a promise waiting to come to fruition. It is the customer himself who will achieve this potential value by the use he makes of the “service offering”. There is therefore “co-creation of value” by the customer through “resource integration”, consisting of completing and modifying the provider’s “value proposition” using his own resources, such as his life experience. It should be noted that, although it opposes a logic of services to a logic of goods, SDL does not fit into a D-type perspective, but into an I-type. After all, it provides a general framework for understanding value co-creation, which applies to both goods and services. While, contrary to what its name might suggest, the SDL approach is indeed an *integrative approach* to goods and services, we will see that the Public Service-Dominant Logic (PSDL), that is, the application of SDL to public services (Osborne et al. 2013) vacillates between integration and demarcation. The initial idea pursued by the promoters of PSDL (PSDL version 1) was to integrate public services into the general SDL approach. But the most recent research seems to be abandoning this general integration/synthesis perspective in favour, first of all, of a relaxed integration perspective (that is to say, a perspective accounting for some specificities of public services: PSDL version 2), and then, in favour of a real demarcation (de-integration) perspective, namely PSL, Public Service Logic (Osborne, 2018), which emphasizes the differences between public services, on the one hand, and market goods and services, on the other.

Table 1: The ADI analytical framework in Service Studies and Service Innovation Studies

“Service Studies” and “Service Innovation Studies” perspectives	Nature or approach of the product	Nature or approach of the innovation	Examples of theoretical constructions
Assimilation	<ul style="list-style-type: none"> • The service is considered as a good • Production function • Industrialization of the service 	<ul style="list-style-type: none"> • Industrialist and technologist perspective • Focus on technological innovation 	<ul style="list-style-type: none"> • Production function • Goods-Dominant Logic (GDL)
Demarcation	<ul style="list-style-type: none"> • The service has specificities (intrinsic technical characteristics) which 	<ul style="list-style-type: none"> • Service-oriented perspective 	<ul style="list-style-type: none"> • IHIP paradigm

	<p>differentiate it from goods</p> <ul style="list-style-type: none"> • Service as operations devoted to “changing the state” of a medium 	<ul style="list-style-type: none"> • Innovation in services has specificities • It is necessary to also highlight the hidden or invisible forms of innovation (non-technological innovation) 	<ul style="list-style-type: none"> • Public-Service Dominant Logic 2 (PSDL 2)⁴ • Public Service Logic (PSL)
Integration	<ul style="list-style-type: none"> • Everything is a service • Servitization of goods • Build a unifying model of the product (goods and services) 	<ul style="list-style-type: none"> • Synthesis perspective • Build a unifying model of innovation in goods and services that encompasses all forms of innovation (technological and non-technological) 	<ul style="list-style-type: none"> • Product-Service Systems • Characteristics-based approaches • Service-Dominant Logic (SDL) • Public-Service Dominant Logic 1 (PSDL 1) • Functional economy • Experience economy • Service science

1.2 The ADI framework and innovation

Within “Service Studies”, the field of “Service Innovation Studies” has also been built on three⁵ theoretical perspectives that reflect different analytical positions vis-à-vis the traditional field of “(Industrial) Innovation Studies”: assimilation, demarcation and integration (Gallouj 1994, 1998; Gallouj and Weinstein, 1997; Coombs and Miles, 2000; Droege et al., 2009) (see Table 1).

- The *assimilation* perspective is an *industrialist and technologist* perspective. It assumes that innovation is similar in manufacturing and services. It thus addresses innovation in services in the same terms as innovation in manufacturing, focusing on its relationship to technical systems. The assimilation perspective is also a perspective of *subordination* of services to manufacturing in terms of innovation. After all, it considers that, for the most part, the technological innovations at work in services are just adopted from manufacturing sectors.

- The *demarcation* perspective is a *service-oriented and non-technologist* perspective. Without, of course, ignoring technological innovations, it focuses on the specificities of services and service innovation by seeking to identify innovation activities that are invisible to traditional (assimilationist) economic tools (for example R&D expenses, patents).

- Finally, *the integrative perspective aims to synthesize the two previous perspectives by developing theoretical constructs* that are able to take into account both goods and services, technological innovation and non-technological innovation.

⁴ PSDL 2 is in reality an intermediate form between Demarcation and Integration. While falling within the integrative perspective that characterizes SDL, it focuses on some specificities of public services. It could thus also be an example of a theoretical construct illustrating the integration perspective.

⁵ A fourth perspective, namely “inversion” (Gallouj, 2010), is not taken into account here. It reflects the active role that knowledge intensive business services play in supporting innovation in their client (service or manufacturing) organizations. These services are not dominated by manufacturing (as they supposedly do in the assimilation perspective), but they may instead be dominant in terms of innovation and knowledge (*inversion* of the balance of power).

As we shall see in the following paragraphs, the analytical focuses that assimilation, demarcation and integration express are implicitly present in the discussions of the three paradigms of public administration.

2. The three paradigms of public administration and the product

“Public Service Studies” were built on the basis of three paradigms that reflect different concepts of the favoured *coordination* mode, the *nature* of the product, the mode of *production organization*, and the mode of *performance evaluation*: traditional public administration (TPA), new public management (NPM) and new public governance (NPG). These three paradigms follow one another historically without necessarily excluding one another. They can be paralleled (albeit in a non-homothetic manner) with the ADI analytical framework of Service Studies (see Table 2).

Table 2: The three paradigms of public administration and the corresponding service studies perspectives

Public administration paradigm	Coordination mode, institution	Nature of the product	Production organization mode	Performance evaluation mode	Corresponding Service Studies perspective
Traditional Public Administration (TPA)	<ul style="list-style-type: none"> The organization, bureaucracy, hierarchy (vertical governance), monopoly The control of processes 	<ul style="list-style-type: none"> Standardized services, public service as a “good” or a quasi-product 	<ul style="list-style-type: none"> Top-down, standardization of tasks, lean management, mechanization Role of the citizen: the citizen is a passive user/consumer. Citizen is a client. He can nevertheless express his preferences in the political field (election) 	<ul style="list-style-type: none"> Industrial world: output, productivity, efficiency Risk: demotivating system of performance measurement. 	<ul style="list-style-type: none"> Simple assimilation of public service to manufacturing: industrialization Goods-Dominant Logic
New Public Management (NPM)	<ul style="list-style-type: none"> The market, competition, privatization, contracting in and contracting out (outsourcing) The control of the results 	<ul style="list-style-type: none"> Public service as a “good” or a market quasi-product 	<ul style="list-style-type: none"> Top-down, role of the agents in contact Role of the citizen: The users/citizens are <u>customers</u> who can freely choose the service and establish competition between different public services 	<ul style="list-style-type: none"> Market and financial world: outcomes, costs, revenues (maybe also domestic world: efforts to build customer loyalty) Risk: demotivating performance measurement system 	<ul style="list-style-type: none"> Double assimilation of public service to manufacturing (industrialization) and market (marketisation) Goods-Dominant Logic and Market-Dominant Logic
New Public Governance (NPG)	<ul style="list-style-type: none"> The network, the multi-agent partnership (horizontal governance) 	<ul style="list-style-type: none"> Public service as a service 	<ul style="list-style-type: none"> Collaboration in production (co-production), production networks 	<ul style="list-style-type: none"> Multicriteria evaluation: different (complementary or 	<ul style="list-style-type: none"> Integration: Public Service-Dominant Logic 1 (PSDL 1).

	<ul style="list-style-type: none"> • Trust and reciprocity 		<ul style="list-style-type: none"> • Role of the citizen: users are <i>co-producers</i> 	competitive) value systems, Take into account all aspects of performance: different worlds (including that of creativity and innovation), take into account time frames (direct/immediate performance, indirect/mediate performance)	PSDL 1 is a generalization of SDL to public services <ul style="list-style-type: none"> • Integration/Demarcation (demarcative integration): Public-Service Dominant Logic 2 (PSDL 2): Focus on certain specificities of public services in a general context of integration. <ul style="list-style-type: none"> • More advanced Demarcation: Public Service Logic (PSL)
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2.1 Traditional public administration

In the traditional public administration (TPA) paradigm, the favoured *institutions or modes of coordination* are organization, bureaucracy, hierarchy, monopoly and control of processes.

In this traditional perspective, it is the industrial logic or logic of *industrialization/assimilation* that prevails (Goods-Dominant Logic). This logic covers three different and complementary facets in terms of (i) the nature of the product, (ii) work organization, (iii) and performance evaluation.

Public services are considered as *material quasi-products*. In dynamics, assimilation/industrialization thus denotes a productification of the public service. Closely related to the evolution of work organization (see below), this can take two different forms. The first aims to erase the specificities of (public) services, to make them homogeneous quasi-products, freed from the intrinsic technical characteristics of services i.e. intangibility, inseparability and immediacy and their consequences on the nature of the product. Industrialization means, in this case, the renunciation of the treatment of cases that are not typical cases. The second form of productification aims, in a way, to transform an intangible service into a material good, substituting technical devices that can be used at home for the human relationship, within the general framework of what is called the digital transformation of public services. Thus, public services also fall within the scope of the self-service society, well-described for market services by Gershuny (1978, 1983) and Gershuny and Miles (1983).

In terms of *organization of work*, the assimilation/industrialization of (public) services means the implementation of a Fordist mode of production centred on highly standardized and mechanized processes and highly specialized tasks (division of labour), under the leadership of technostructure specialists whose mission is to design the organization, standardize and control tasks. The products are designed only from the point of view of supply, in the context of a *vertical (top-down) logic*, based on control. The

hierarchical leaders of the administration (the technostructure) design standard products that operational staff delivers to citizens considered as *clients*. The latter are passive consumers, who do not intervene in the design and production of these products⁶. So-called service design in public services (which recommends developing service delivery models: “flowcharting”, “blueprinting”) falls within the scope of this facet of industrialization (Shostack, 1984; Lovelock, 1992; Kingman-Brundage, 1992).

In terms of *performance evaluation* criteria, it is productivity, an indicator of the industrial and technical world (the world of volumes and technical operations) that predominates. This indicator, especially in a public service environment, can be demotivating because it does not take into account or attempts to reduce the efforts made in other worlds of performance, for example, the domestic world (that of interpersonal relations and tailor-made services). This system of performance measurement can be detrimental in terms of innovation dynamics.

2.2 New public management

In the new public management paradigm (NPM), the central element is the introduction of economic rationalism and market logic into public service. *The market takes precedence over the hierarchy as a mode of coordination*. Some public services are privatized or contracted out, others have to compete with private or public providers for users/citizens, who become *customers*. NPM also promotes the rise of public-private partnerships with the idea that the private actor will exert a beneficial influence on the public actor. It also promotes the establishment of “social enterprises” which are “hybrid organizations”, in which the incumbent public logic faces other institutional logics: market logic essentially, but also logic of civil society (Vickers et al., 2017). In this general perspective, NPM is built on the following three principles: precisely formulated objectives, performance incentive “management contracts” and independent “cost centres” (decentralized budgetary control). NPM transposes private sector management techniques to the public sector⁷. Control (of results) remains a central element of this paradigm.

Regarding the *nature of the product*, in the NPM paradigm, public service continues to be addressed as a good (a material quasi-product), but the industrial logic (logic of industrialization/assimilation), still present, is accompanied by a pre-eminent market logic (marketisation). There is therefore a *double assimilation* of public services to industrial goods and market services. But it is the dimension of market assimilation which prevails here.

The *organization of work* remains top-down, even if the agents in contact play a larger role. This paradigm does full justice to the preferences of citizens, who are now considered as “customers”, in particular because they can now freely choose some services and generate competition between different public services, or between public

⁶ The area where they can nevertheless, to a certain extent, express their preferences, dissatisfactions and desires is the political field (elections).

⁷ This introduction of the market in public organizations is reflected in the emergence of a new terminology within the administrations: “business plans”, “value added”, “products”, “clients satisfaction”, “reengineering of public services” (Rouillard et al., 2004).

services and private services. However, in this paradigm, co-production of the service by the customer is not really a target.

In terms of *performance evaluation* criteria, outcome measures are preferred over output measures. NPM draws on the market world, i.e. the world of monetary and financial value (whose indicators include costs, returns, value added, revenue). It may also draw, to a certain extent, on indicators of the domestic or relational world (the world of interpersonal relationships based on empathy and trust), insofar as the purpose is also to establish customer loyalty, among customers who are less captive. It should be noted that, again here, as in TPA, performance indicators from the financial world can be demotivating in that they may be in contradiction with other indicators: indicators of the industrial and technical world, indicators of the social-civic world (the world of fairness, justice, inclusion). These contradictions can also be detrimental in terms of innovation.

2.3 New public governance

The new public governance (NPG) paradigm considers public service not as a product but as a *service*. It is based in particular on service theory, and especially on the so-called Service Dominant Logic – SDL (Vargo and Lusch, 2004; Lusch and Vargo, 2006). SDL applied to public services is called Public Service Dominant Logic – PSDL (Osborne et al., 2013). The concept of product introduced in NPG by PSDL, which we touched upon in section 1.1, merits further discussion. Initially, PSDL (PSDL 1) pursued the objective of *integrating* public services with the universal service logic (SDL), which considers that any economic activity (whether it concerns goods or services) is a “service offering”. Later, while continuing to fall within the scope of a general perspective of integration, PSDL (PSDL 2) emphasized certain specificities of public services (reflecting a double demarcation vis-à-vis industry and market services). This could be termed demarcative integration. Today, it would appear that the demarcation of PSDL vis-à-vis SDL is fully embraced. It is even semantically expressed by Osborne's (2018) recent proposal to replace the term PSDL with PSL (Public Service Logic). As the author puts it, “this term maintains the link to service, rather than product-based theory, but distances it from being simply an offshoot of SDL”. While the idea of demarcating from SDL is interesting, the choice of the term (PSL) is perhaps questionable, since, by its connotation, it seems to hark back to the traditional public administration paradigm.

In new public governance (NPG), the *predominant mode of coordination* is the network (collaboration, partnerships, in particular public-private partnerships), that is to say an association of several public and/or private actors interacting for the co-production of public service and the co-creation of public value (Pestoff et al., 2012, Desmarchelier et al., 2019). In this context, according to a classic result of service economics and management on which NPG is based, the user/citizen is no longer just a consumer, he becomes a partner and a co-producer of the public service (Alford, 2009; Thomas, 2012; Osborne and Strokosch, 2013). Control gives way to trust-based management. Horizontal relations (networks) are more likely to solve problems than vertical relations (hierarchy), if only because public administrations are organized around functions (e.g. housing, health) and not problems (e.g. social exclusion, ecological crisis), which cut across hierarchies (Enjolras, 2010).

Regarding the *production organization modes*, the shift from the NPM paradigm to the NPG paradigm marks the importance of service co-production, value co-creation and the role of the customer/citizen in co-production and co-creation (Osborne, 2006, 2010). Due to the importance of the network form of organization, this new paradigm has been called Networked Governance (Kelly et al., 2002).

In terms of *performance*, the NPG paradigm is sensitive to a multi-criteria assessment. This multicriteria evaluation, seeking the right balance between industrial/technical, market/financial and civic criteria, is indeed more likely to do justice to the diversity of institutional logics at work in multi-agent systems. Moreover, whatever the criterion (the evaluation register), in NPG, performance is assessed according to different time frames: short-term performance (linked to output) and long-term performance (linked to the outcome).

3. Public administration paradigms and innovation

The different paradigms of public administration, whose main characteristics we have just outlined, raise, in different terms, the question of innovation in public services. Table 3 provides a summary of these terms (which we will develop in the following paragraphs), from the perspective of the *nature* of the innovation and its *modes of organization*. These terms can be compared with the ADI framework of the SIS analytical perspectives. Just as for the analysis of the product, TPA can be linked to industrial assimilation, NPM to industrial and commercial assimilation and NPG first to integration and then to demarcation.

Table 3: Public administration paradigms, innovation and the theoretical perspectives of Service Innovation Studies

Public administration paradigm	Nature of innovation	Organization mode of innovation	Corresponding Service Innovation Studies perspective
Traditional Public Administration	<ul style="list-style-type: none"> • Technological and non-technological process innovations... • Organizational innovations... • ... aiming to maintain homogeneous quasi-products • Few new services properly speaking 	<ul style="list-style-type: none"> • Linear model of innovation • Organizational processes and changes are developed by technostuctures (sort of R&D-I departments), technological innovations are adopted. • Operational staff provides production • Citizens passively consume the service • Exclusion of citizens (clients) from innovation processes 	<ul style="list-style-type: none"> • Assimilation. Industrialization, Technology, Subordination
New Public Management	<ul style="list-style-type: none"> • Technological process innovations, • Organizational and managerial innovations 	<ul style="list-style-type: none"> • Linear model of innovation (technostructure) • Intrapreneurship, public entrepreneurship 	<ul style="list-style-type: none"> • Double assimilation. Industrialization, Marketisation

	<ul style="list-style-type: none"> • More new services (quasi-products) 	<ul style="list-style-type: none"> • Employee driven innovation • Public Manager as the actor responsible for innovation • Low participation of users in innovation processes, even if they are encouraged to express their preferences 	
New Public Governance	<ul style="list-style-type: none"> • Broad and open concept of innovation (technological, non-technological including social innovation): product/service innovations, process and organizational innovations, conceptual innovations, strategic innovations, radical changes in rationality, institutional innovations (or governance innovations), administrative innovation, rhetorical innovation... 	<ul style="list-style-type: none"> • Interactive model of innovation, collaborative innovation, innovation networks involving multiple public and/or private actors with varying responsibilities in the innovation process • Role of the public manager: creating favourable conditions for network collaboration (metagovernance) + operational participation • User-driven innovation, citizens as co-innovators 	<ul style="list-style-type: none"> • Integration: Public Service Dominant Logic 1 (PSDL 1) • Integration/demarcation. Public Service Dominant Logic 2 (PSDL 2) • Demarcation Public Service Logic (PSL)

3.1 TPA and innovation

It would be tempting to say that the myth of non-innovative public services developed within the framework of the TPA paradigm. Yet innovation is a reality, even in this first paradigm, if only as a consequence of administrative reforms and political changes.

These innovations fall within the scope of a service industrialization trajectory, transforming public service into a homogeneous quasi-product. After all, technological process innovations, especially ICTs (introduced in public services, coming from external suppliers), but also new processes and new organizational modalities, occupy a central place in the TPA paradigm. Innovation is therefore mainly focused on (technological and non-technological) processes and organization with the objective of providing citizens with homogeneous services over the national territory.

The organization model of innovation at work is the traditional linear model. The new processes and the organizational changes are developed by experts in public administration technostructures (playing the role of true R-D-I departments). Operational staff (production agents) and citizens/clients are passive actors, who never or hardly ever take part in innovation processes.

Within the TPA paradigm, innovation seems to fall within the scope of the assimilation perspective of the SIS framework, in that the purpose is to safeguard the industrial character of the public service on the basis, in particular (but not exclusively), of technological process innovations.

3.2 NPM and innovation

The NPM paradigm has mixed consequences on innovation in public services (its nature, its modes of organization). It is necessary to distinguish here i) the *theoretical*

concept of innovation associated (or associable) with this paradigm and the ii) *real* results in terms of innovation within this paradigm.

i) From a theoretical point of view, looking first at *the nature* of innovation, NPM can be said to fall within the scope of an assimilation perspective as well. However, unlike the TPA paradigm, NPM involves a *double assimilation to manufacturing (industrialization) and market (marketisation)*. But though it results in a more tailored service, the focus on the user/customer does not lead to a diversification of the service offering (an offering that would be tailored to the specific needs of each customer). Process, organizational and managerial innovations still dominate. Secondly, regarding *how innovation is organized*, it can be said that the technostructure continues to play an important role. However, NPM also promotes some forms of public service entrepreneurship and intrapreneurship (Osborne and Gabler, 1993; Roberts and King, 1996). The public entrepreneur deploys a number of problem-solving (i.e. innovation) skills in public organizations. Moreover, by focusing on the need of the user seen as a *customer* to satisfy and not as a passive *client*, and by promoting decentralization strategies, the NPM paradigm also integrates into innovation dynamics the operational staff (employee-driven innovation) and, if not the customers themselves, at least their preferences. The citizen is no longer captive and passive. As a “customer”, he is able to make public services compete with each other and with private providers. By threatening to go elsewhere for the services, he may compel the public agent to adapt or improve the services provided. His preferences and needs are now better taken into account, which is a source of innovation. But he is not, at this stage, an active agent of the innovation process (as described by the user-driven models). Although his preferences (which he is encouraged to express) are taken into account by the public agent within the innovation process, he does not actually take part in the process himself. *In short, the innovation model inherent to NPM is not based on the creation of multi-stakeholder innovation networks.*

ii) From the point of view of the real outcome (success) of this paradigm in supporting innovation, the results are rather mixed. This paradigm has a number of intrinsic characteristics that can hinder innovation (Sørensen and Torfing, 2013; Hartley et al., 2013). The focus on performance management is at the root of a “culture of zero error”, which is prejudicial to the spirit of innovation. The logic of competition hampers the exchange of information and knowledge, and the transformation of the user/citizen into a customer is not necessarily synonymous with a higher commitment of the customer in the dynamics of innovation.

3.3 NPG and innovation

The paradigm of new public governance introduces a significant change in the approach to innovation in public services, from the point of view of its nature, but especially of its mode of organization.

The nature of innovation

By considering the public service, no longer as a good (a quasi-product), but as a service, and by building on SDL, as we have already pointed out, NPG falls first within the scope of an *integration perspective* (PSDL 1: simple generalization of SDL to public services) and then within the scope of more or less pronounced *demarcation*

*perspectives*⁸ (PSDL 2, then PSL). Whatever the perspective, NPG takes into account not just technological innovations, but also forms of innovation that were previously invisible when looked at from a strictly industrial and technological focus (assimilation). NPG is based on a broad and open concept of innovation encompassing traditional categories of product/service, process and organizational innovations, as well as specific forms described in recent literature: conceptual innovations, strategic innovations, radical changes in rationality, institutional innovations (or governance innovations), administrative innovation and rhetorical innovation (Mulgan and Albury, 2003; Hartley, 2005; Koch et al., 2005; Windrum and Koch, 2008; Becheikh and al., 2009; Fuglsang, 2010; Miles, 2013).

The organizational modes of innovation: the rise of innovation networks in public services

However, as far as its concept of innovation is concerned, NPG's core focus is on the collaborative and network dimensions (Osborne, 2006, 2010). The network dimension, emphasized in the field of service production and delivery (see section 2.3), naturally applies to the field of innovation. NPG therefore reflects the shift from a linear and endogenous concept of innovation processes in public services to an open, interactive and network-based concept. In these innovation networks (just as in the production networks or partnerships mentioned in section 2.3), the citizen is not a passive consumer, but an agent who is particularly useful and active in the innovation process.

In general, the notion of innovation network (IN) can be defined according to two different but complementary perspectives: a morphological/structural perspective and a functional/ontological perspective.

From a *morphological perspective*, the innovation network is a *structure*, a mode of organization, which brings together a certain number of agents and establishes relationships among them in order to co-produce innovation. The number of agents involved is variable and the relations in question are more or less strong and diverse. The notion of IN covers large-scale meso-economic structures that constitute, in a given field and/or geographical area, a dense tissue of agents often engaged in long-term interactions. But it also includes collaborative innovation relationships (consortia, strategic alliances), that are more limited in space and time and that are established among a smaller number of agents⁹. The innovation networks envisaged in NPG most often fall within this second type of IN (Demarchelier et al., 2019).

In the *functional/ontological perspective*, the innovation network, i.e. the inter-organizational collaboration for innovation (just like all networks generally speaking) is a (new) *mode of coordination* between agents which differs from the traditional modes of coordination, namely the hierarchy (integration into the firm) and the market. In terms of innovation, just as in any other field, while the hierarchy is based on reducing transaction costs, and the market on establishing an explicit contract, the network is based on trust, reputation and mutual dependence among selected partners. This trust-based mode of coordination is considered to be more effective and more innovation-friendly than the other two (hierarchy and market) for a number of reasons. After all, the

⁸ It is a double demarcation vis-à-vis industrial and service-oriented approaches.

⁹ This second (more limited and more microeconomic) expression of IN is often called "multi-agent network".

organizational or hierarchical integration (the establishment of an R&D or innovation department) presents the risk of bureaucratization that hinders innovation, a risk very well described by Schumpeter. Second, in the context of market coordination, competition hinders the exchange of information and knowledge, and explicit contracts for complex and uncertain research and innovation products involve an obvious risk in terms of protection of property rights. It should be noted that the benefits of partnerships were already highlighted in NPM, for example by encouraging Public-Private Partnerships (PPPs). However, in the context of NPM, the active ingredient of the partnership is not the partnership itself, but the introduction of the market. The idea is that adding (efficient) private activity to (inefficient) public activity helps to increase the overall performance of the system. In NPG, the active principle of networks is not the market, but the collaboration of heterogeneous agents.

As Podolny and Page (1998) and others (see also Enjolras, 2010) point out, from a structural point of view, there is no difference between hierarchy, market and network. Any organizational form (both hierarchy and market) is thus a network, insofar as it consists of a set of actors/nodes and relations among them (ties). The hierarchy can be considered as a set of nodes in which most of the ties come from and go to a higher order node, whereas the market appears as a set of isolated, unrelated nodes. It is from the point of view of governance (and not structure) that networks are distinguished from markets and hierarchies. The market is characterized by episodic exchanges, and the hierarchy by enduring exchanges and the existence of a legitimate authority that arbitrates the conflicts among the actors (Podolny and Page, 1998). The network is a form of organization defined as “a collection of actors ($N \geq 2$) that pursue repeated, enduring exchange relations with one another and, at the same time, lack a legitimate organizational authority to arbitrate and resolve disputes that may arise during the exchange” (Podolny and Page, 1998, p. 59). This definition is nonetheless questionable insofar as some networks can be created by and function under the guidance of a conductor-agent, who exercises some legitimate authority.

On the theoretical level, the success of the notion of innovation networks stems in particular from its intermediate position between, on the one hand, broader theoretical frameworks (systemic analyses) and, on the other hand, more basic theoretical constructs (various collaborative relationships). Thus, the innovation network (as a meso-economic structure or as a more limited consortium) is the building block of all the broader concepts of the systemic lineage: national, regional, local, technological, social or sectoral innovation systems, innovative milieus, technological districts, technopoles or clusters (Grabher, 2006; Glückler, 2007; Phlippen and van der Knaap, 2007; Freeman, 1987; Carlsson and Stankiewicz, 1991; Amable et al., 1997). Conversely, the concept of innovation network integrates the numerous theoretical advances made in the field of collaborative innovation. These advances include, among others, the theories of open innovation (Chesbrough, 2003), employee driven innovation (Kesting and Ulhoi, 2010), virtual users and user-created content (Dahan et al. Hauser, 2001), innovation communities (Franke and Shah, 2003; Bartl et al., 2004), but above all user-driven innovation (Von Hippel, 1986) which describes users' needs, preferences, experiences and skills as essential factors in innovation dynamics. The openness of innovation to the customer is not a new phenomenon. Statistical works have long been unanimous in emphasizing that customers are the main source of innovation in firms. However, the customers and the users are not homogeneous from this point of view, and the literature identifies “lead users” who are strategic resources in innovation projects. In contemporary economies, this openness to customers or users is intensifying at the crossroads of two phenomena: 1) the promotion of research or innovation by

customers or users, in certain areas; 2) the strategies carried out by some firms or organizations aimed at involving customers in different ways, and to varying degrees, in innovation processes. Examples include the decisive role played by certain patient organizations in research and therapeutic innovation, crowdsourcing, the use of social media in business innovation, and so on.

Conclusion

“Service studies” and “public service studies” are two important and prolific fields of research, which have developed separately with limited interaction. Indeed, “service studies” are above all “market service studies”, which developed in the field of economics and management (especially marketing), seeking to understand the specificities of market service compared with manufacturing goods. “Public service studies”, which developed in the field of political science and public management, have focused on the non-market (or public) aspect of public services, long neglecting the service dimension of these activities. One could say that these are above all “non-market studies”. The recent encounter of these two theoretical fields, within the framework of new public governance, has opened interesting research perspectives, in particular regarding the issue of innovation.

This paper was an attempt to establish a dialogue about service production and innovation among the three paradigms of public administration (TPA, NPM, NPG) and the three analytical perspectives used in service studies (A, D, I). After all, whether their analytical focus is on production processes or innovation dynamics, the three paradigms of public administration can be described in terms of assimilation, demarcation or integration perspectives.

Thus, in the traditional public administration paradigm, the reference is not services, but goods. The purpose is to produce homogeneous quasi-products, by using technical systems and rationalizing production processes. This paradigm falls within the scope of an (industrialist) assimilation perspective. In the new public management paradigm, it is still not the service as such which is the reference, but the market good. Production processes as well as innovation processes do not fall within the scope of a demarcation perspective, but still of an (industrial and market) assimilation perspective. Finally, in the new public governance paradigm, the reference is the service. “Public service studies” here are explicitly based on service theory, in particular SDL (Vargo and Lusch, 2004). They first fall within the scope of an integrative perspective, and secondly within the scope of a demarcation perspective emphasizing the specificities of public services vis-à-vis general SDL. In both cases, the reference to service theory introduces a broad and open concept of innovation that covers technological aspects as well as a wide variety of non-technological aspects of innovation. It also introduces an interactive and open concept of the dynamics of production and innovation, centred on multi-agent networks, in which the user/citizen occupies or is urged to occupy an essential place as co-producer, co-innovator and ultimately co-creator of value.

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